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July 10, 1973

PROJECTIONS FOR THE NEW YORK URBAN REGION'S 31 COUNTIES - 1985, 2000

Population, Employment, Households, Income

INTRODUCTION

The United States may well be on the threshold of zero population growth. In the aftermath of the post World War II baby boom, birthrates in the past 15 years have sharply declined, causing demographers to suggest that national population may stabilize in 70 years. Because of its historically lower birthrates, and an expected decline in net in-migration, the New York Urban Region could witness the arrival of population stability even sooner. Regional Plan Association has projected that the combined population of New York City and its 26 surrounding counties could stabilize by 2020 at a population level of 27 million if birthrates remain at the present level. Stability would set in even sooner should birthrates continue declining. However, a state of zero growth by 2020 would still mean the addition of seven million persons over 50 years. Most of this increment--about five million persons--would occur during the remaining 30 years of this century.

Accordingly, this report seeks to examine the implications of such growth for the Region's 31 counties. The pattern of population settlement and the allocation of growth to individual counties are discussed first. This is followed with a portrayal of the likely effects of such growth on housing supply and demand. And finally, the report links the impact of the expected demographic growth on the Region's economy to changes in the geographical pattern of employment, followed by an illustrative projection of county income.

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I. POPULATION SETTLEMENT IN THE REGION

Assumptions Underlying the Allocations

The assumptions on which we based this allocation of population are these:

1. Urban areas grow outward gradually: jobs stay close enough to the center of population to assure their labor supply and market. Residences spread outward from the jobs, but they do not leap miles away; rather, they stay as close to the jobs as the housing allows and the transportation and highways require. So the principal assumption is that population will tend to grow evenly outward from the Region's center (with variations due to past development, transportation and unusual topography).

2. How close population stays to the center depends a little bit on the types of jobs and the types of households.

a. While the great majority of jobs serve the people in their immediate area, and so follow population, most factory and office jobs somewhat lead population. Jobs in factories tend to spread outward and use a lot of space. But they will decline over the rest of the century. Though some new factories will be built and will tend to shift factory employment outward from the Core, the numbers are too small to affect the density gradient. Office jobs, on the other hand, will nearly double and will tend to hold population toward the center. Regional Plan has projected that one-third of the office job growth will be <u>in</u> the center, Manhattan south of Central Park.

b. There will be many more households with no children or one child over the rest of the century, and we assume that most will continue to prefer attached houses or apartments. Where there are centers of activities that offer satisfactory living conditions, we assume they will prefer living in and near them. Therefore, we are projecting increased population in parts of the Core and the older suburbs that have not had rising population in recent years. At the same time, we assume that

families with school-age children will, for the most part, choose homes with their own yards, which will be built on the edges of development. So the total density of the Region will continue to go down only slightly less rapidly than it has been.

3. People try to minimize the time it takes them to reach jobs and activities. We therefore assume they will choose housing where highway and public transportation quality is good, other things being equal. Therefore, population will increase unusually fast over the next 30 years where new expressways are being opened, mainly in New Jersey.

4. Zoning is the final ingredient considered. By specifying land for various purposes, zoning can sharply limit the amount of housing available in any county in three ways: (1) by sheer space available--i.e., an area zoned for one-family houses on one-acre lots provides space for fewer than half the homes that the same area would offer if zoned for half-acre lots; (2) by limiting the kinds of housing in demand--e.g., zoning that does not allow apartments near downtowns may result in nobody at all living on that land because it is too expensive for one-family houses, and vice versa--zoning that puts apartments far from downtowns may not attract tenants; (3) by limiting the number of households that can afford a new housing unit, i.e., zoning now prohibits the construction of lower-cost types of housing units (only about 20 percent of the Region's households can afford a new unsubsidized housing unit now). We are assuming here that over the rest of the century zoning will not be allowed to prohibit needed housing of appropriate types in any county, but none of our county projections exceeds the total housing capacity of the county under present zoning.

The following allocation of population is neither a prediction of what <u>will</u> happen nor a recommendation of what <u>should</u> happen. It is a projection of what <u>will happen if</u> present trends continue under the above assumptions.

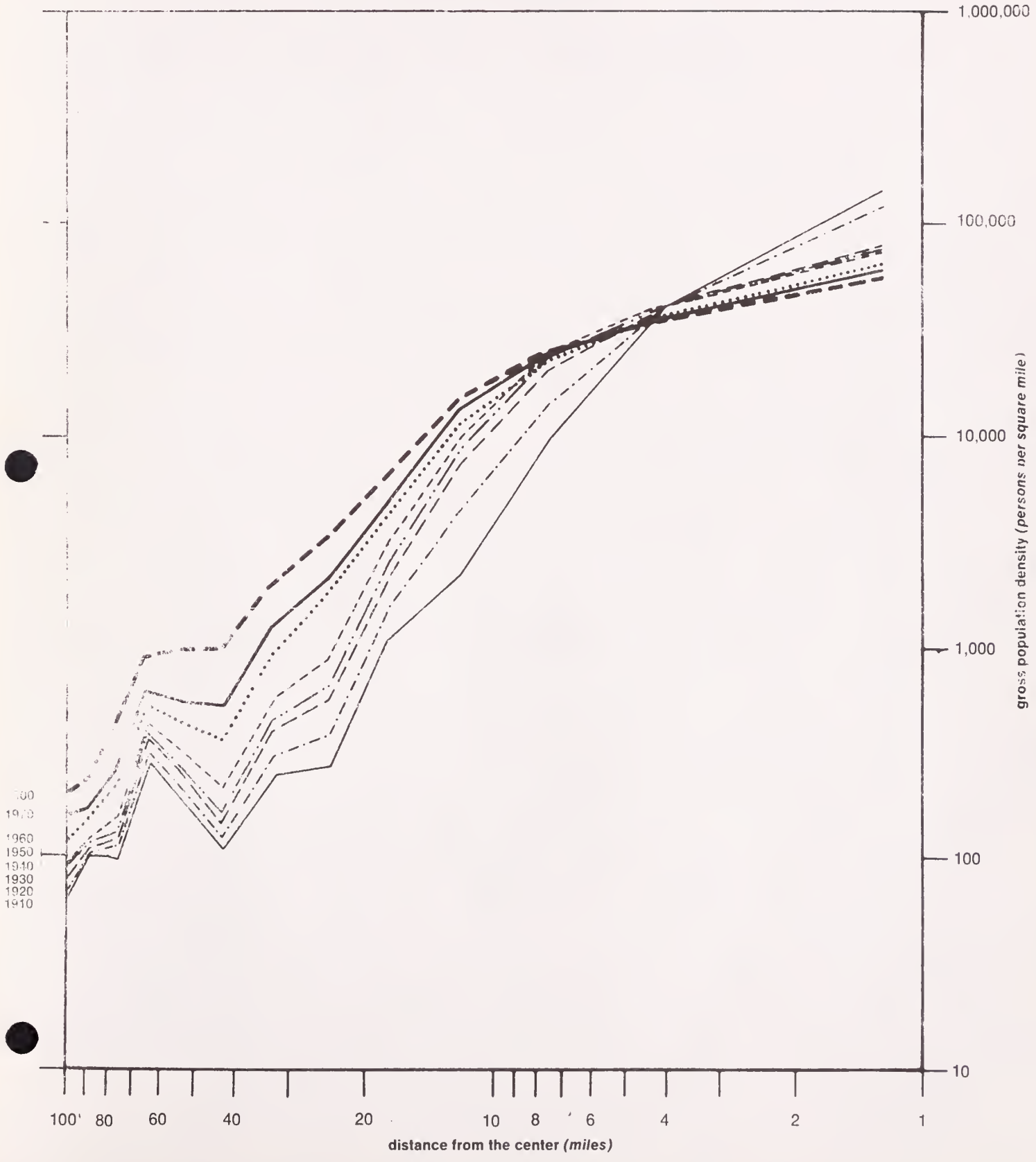
An Overview of Settlement

Population settlement in the Region creates a pattern in which densities are greatest in the Core--formed by Manhattan, Brooklyn, the Bronx, Queens, Hudson County and Newark--and least in the peripheral band of outermost counties which extend from 70 to 100 miles from the center. Since the beginning of this century, when the Region was essentially a collection of distinct cities clustered about the Core, each increment in population served to fill in the gaps between these clusters. Post World War II suburbanization has gone far to develop the remaining open spaces within 25 miles of the Region's center. By the end of this century, development will likely form one large, continuous settlement in which average densities gradually decline as one moves from 40 to 50 miles in any direction from the Manhattan Central Business District. (This conceptualization of settlement is portrayed by a density gradient in Fig. 1.)

Changes by ring of development. Population in the Core is expected to decline (by approximately 100,000 persons) until 1985 and then begin to increase. The Core should end the century with roughly the same 8.6 million population it has today. Its population decline and subsequent increase is projected on the basis of an expected fluctuation in housing supply, which by century's end will likely begin catching up with the assumed demand for apartments. Almost 44 percent of the Region's population lived in the Core in 1970. By 2000 it will be occupied by 35 percent of the total (See Fig. 2.)

An Inner Ring of development, a belt of the first settled suburbs approximately 15 to 30 miles from the center, was almost completely filled in the burst of population growth that occurred in the 1950's. Here, only slow population growth appears likely through the remainder of the century. Nevertheless, construction of higher density dwellings on land that remains undeveloped (such as the open parts of Staten Island or the New Jersey Meadowlands) and in areas presently

Density Gradient, 1910-2000



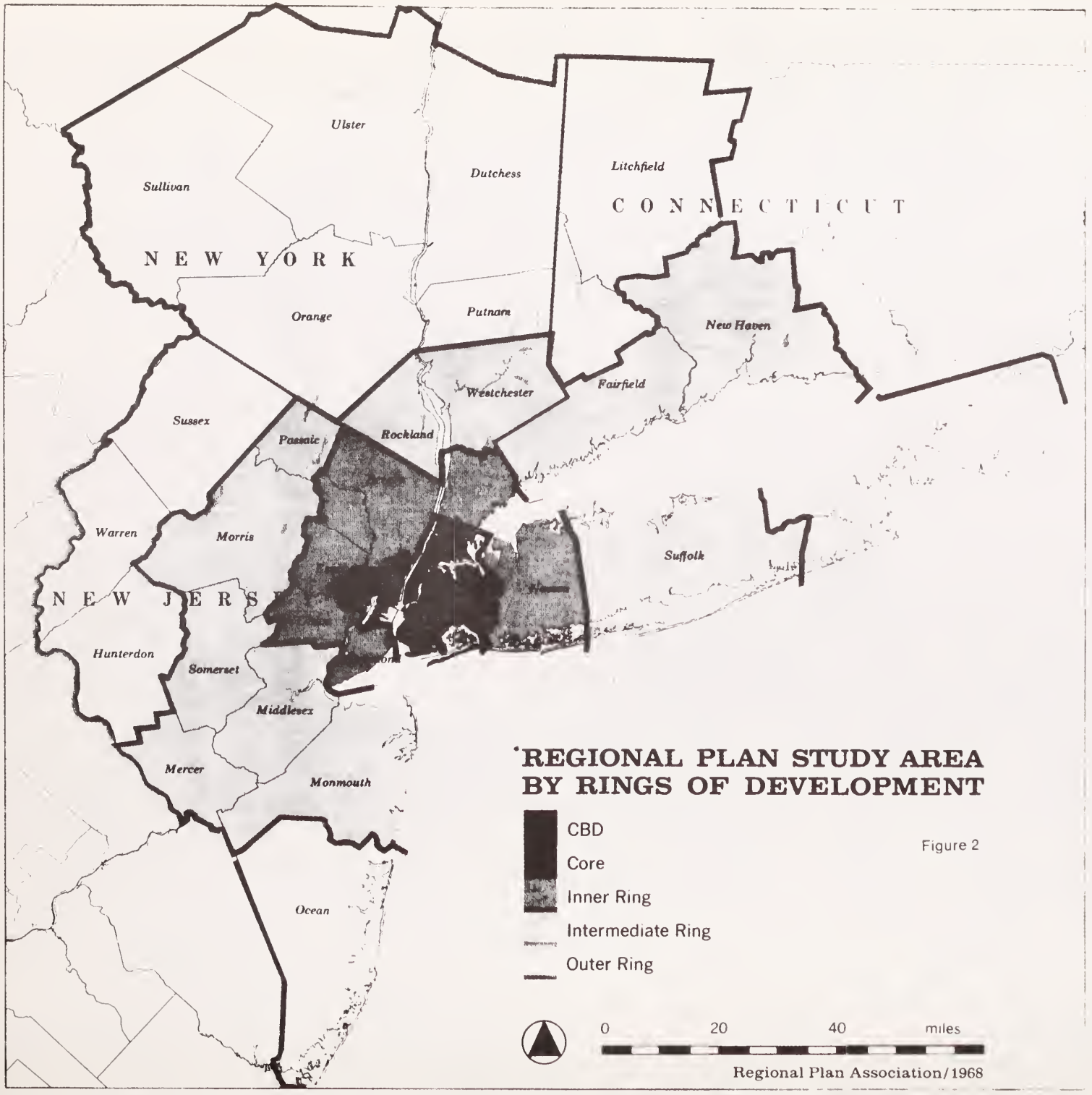

Ulster
Sullivan
Dutchess
Litchfield
CONNECTICUT
NEW YORK
Orange
Putnam
New Haven
Westchester
Fairfield
Sussex
Passaic
Rockland
Warren
Morris
Suffolk
NEW JERSEY
Hunterdon
Somerset
Middlesex
Mercer
Monmouth
Ocean
REGIONAL PLAN STUDY AREA
BY RINGS OF DEVELOPMENT
CBD
Core
Inner Ring
Intermediate Ring
Outer Ring
0
20
40
miles
Regional Plan Association/1968

Figure 2

developed with single-family dwellings would make possible an addition of almost 850,000 persons by 2000. With such growth (as shown by Table 1), this band of settlement would continue to accommodate approximately one-quarter of the Region's population until century's end, when its population would total 5.7 million.

Table 1

POPULATION BY RING OF DEVELOPMENT

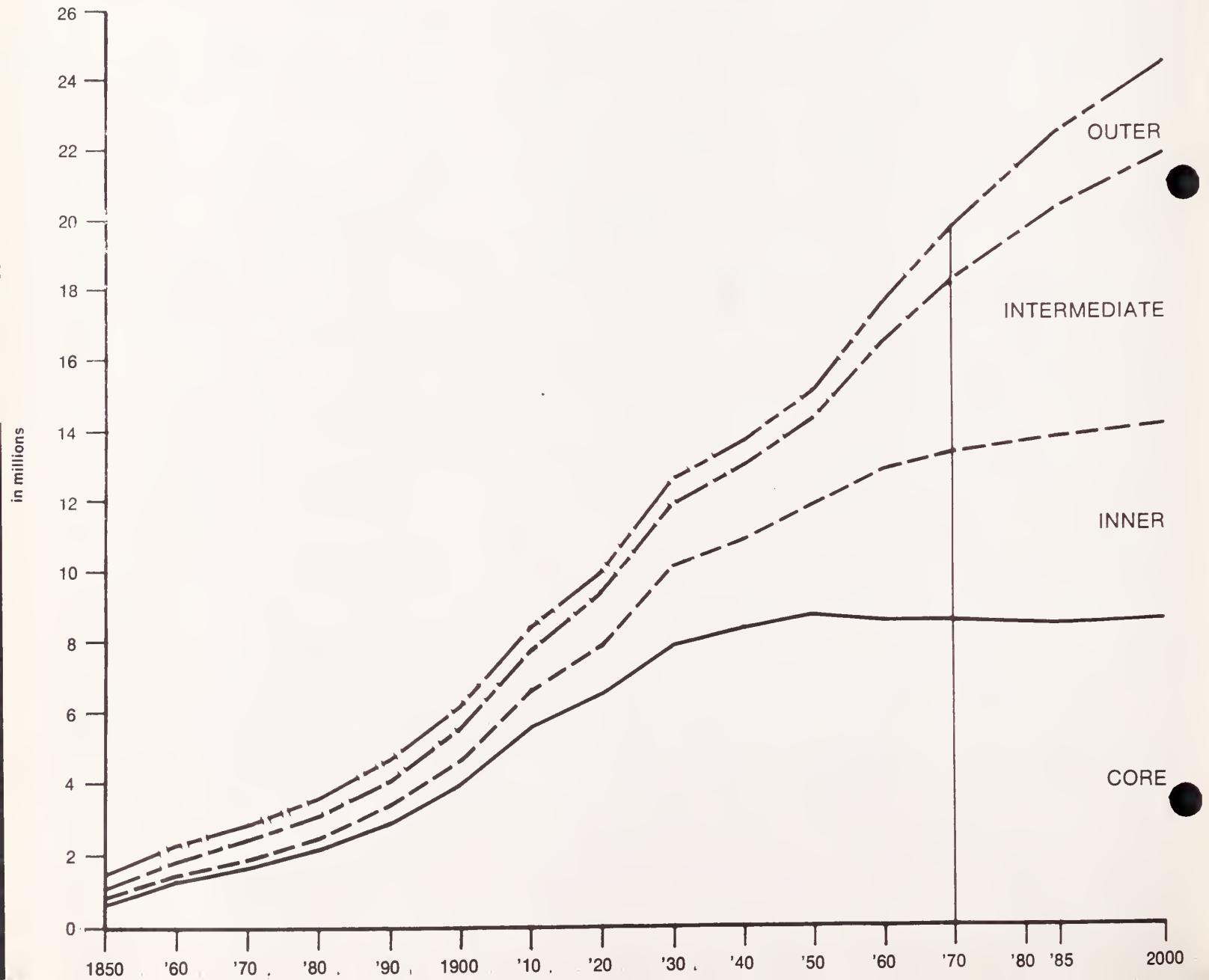
	POPULATION (Thousands)		DENSITY (Persons per Square Mile)		AVER. ANNUAL GROWTH (Percent)	
	1970	2000	1970	2000	1940-1970	1970-2000
Region	19,755.8	24,580.0	1,550	1,928	1.26	0.73
Core	8,591.3	8,625.0	27,651	27,760	0.08	0.01
Inner Ring	4,801.4	5,650.0	4,836	5,691	2.20	0.53
Intermediate Ring	4,889.8	7,740.0	1,241	1,966	3.07	1.54
Outer Ring	1,473.3	2,565.0	196	342	2.35	1.86

An Intermediate Ring of suburban counties, 30 to 60 miles wide, will receive the largest addition of population--nearly three million persons during the century's last three decades. Expanding population twice as fast as the Region on the whole, this band of suburbs would, by 2000, accommodate a population of 7.7 million--just under one-third of the Region's total. In experiencing such growth, virtually every county in this suburban swath will have densities exceeding 1,000 persons per square mile, the point at which an area begins to have predominantly urban characteristics. (Only northern Passaic County with a projected density of 845 persons per square mile in 2000 would fall below this threshold.)

An Outer Ring of 11 primarily rural counties will grow relatively faster than any other band of settlement by multiplying its population annually at a rate two and a half times that projected for the full Region. Such growth would add 1.1 million residents. The Outer Ring suburbs by 2000 would accommodate about 2.6 million persons, or 10 percent of the Region's total population. (They now hold 7.5 percent of the total.) Rising per capita income will prompt the development of an increasing number of seasonal homes in this area. Figure 3 portray's past and projected population growth in the Region by ring of development.

Population by Ring of Development, 1850-2000

Figure 3



II. POPULATION GROWTH IN THE COUNTIES

Just as the Intermediate Ring surpassed the Inner Ring in accommodating the major share of population growth for the first time in the last decade, so too the recent population gains in the New Jersey sector of the Region outnumbered those in Long Island for the first time in the Twentieth Century. Equally unprecedented was the failure of the New York State portion (Northern New York plus Long Island as shown in Table 2) to accommodate at least half the Region's population growth in the past decade. The rising share of population living in New Jersey and the declining share living in New York is expected to be a major theme characterizing population settlement in the Region over the remainder of the century.

Table 2

SHARE OF THE STUDY AREA'S POPULATION INCREMENT RECEIVED BY EACH RING AND SECTOR, 1900 to 2000

	RINGS				SECTORS			
	Core	Inner	Inter-mediate	Outer	Northern New York*	Long Island**	New Jersey	Connecticut
1900-10	70.7%	15.6%	11.4%	2.2%	38.1%	30.1%	25.7%	6.1%
1910-20	60.1	23.4	17.1	- .6	18.4	40.2	31.7	9.8
1920-30	52.0	31.5	13.6	2.9	13.1	54.4	27.9	4.6
1930-40	49.2	27.1	17.7	6.0	27.6	55.2	11.1	6.1
1940-50	26.8	38.3	28.8	6.1	14.8	41.4	33.7	10.1
1950-60	- 8.5	50.0	47.8	10.7	2.2	48.3	38.0	11.5
1960-70	0.7	21.5	59.9	17.9	9.6	38.3	40.4	11.7
1970-2000	0.7	17.7	59.0	22.6	15.3	26.1	49.9	8.7

* Includes Manhattan, Bronx, Westchester, Rockland, Putnam, Orange, Dutchess, Ulster and Sullivan.
** Includes Brooklyn, Queens, Nassau, Suffolk and Sten Island.

During this century's final three decades, fully half the Region's total growth, an increase of 2.4 million persons, is likely to settle in the 14 New Jersey counties, submitting this area to a rate of growth nearly twice that of the Region as a whole. An equal number of counties comprising the New York State portion will gain two million inhabitants, which amounts to 41 percent of the total growth. The three remaining Connecticut counties are expected to keep pace with the Region's overall growth rate, adding some 400,000 residents in the 30 year period. The following discussion details the projected population growth by county.

The Connecticut Sector

Growing at the same rate as population in the entire Region, the three Connecticut counties* would increase their 1970 population of 1.7 million by 25 percent during the final three decades of this century. This addition of 418,000 persons would be smaller than the growth received by the same counties in the preceding three decades. As Table 3 shows, Fairfield County--which surpassed New Haven County in the 1950's--can expect to receive the largest amount of growth, about 200,000 persons.

*Connecticut has no county governmental units, but due to their use by the U.S. Bureau of the Census, these units are preserved as useful areas for analysis. The three counties include the following Connecticut Planning Regions: Southwestern, Greater Bridgeport, Housatonic Valley, Ansonia-Derby, South Central, Central Naugatuck Valley, Northwestern Connecticut, Torrington-Winchester, and a small portion of the New Britain-Bristol district.

Table 3

CONNECTICUT SECTOR - POPULATION, GROWTH, DENSITY: 1940-1970; 1970-2000

	POPULATION (Thousands)		GROWTH (Thousands)		GROWTH (Percent per Year)		GROSS DENSITY (Persons per Square Mile) Amount	
	1970	2000	1940 to 1970	1970 to 2000	1940 to 1970	1970 to 2000	1970	2000
Fairfield	792.8	1,000	375	207	2.15	0.77	1,253	1,580
Litchfield	144.1	200	57	56	1.69	1.10	153	213
New Haven	744.9	900	261	155	1.45	0.64	1,224	1,478
Connecticut Sector	1,681.8	2,100	693	418	1.78	0.75	771	963
Region	19,755.8	24,580	6,190	4,824	1.26	0.73	1,550	1,928

Sources: Population - U.S. Census of Population; Density - Based on U.S. Census of Areas, 1940 and local government sources; Growth and Projections - Regional Plan Association.

These counties, which contain 17 percent of the Region's land area, would receive nine percent of the population growth anticipated between 1970 and 2000. However, by matching the Regional growth rate of approximately 0.7 percent a year in the 30 year projection period, the Connecticut group will maintain a constant 8.5 percent share of the Region's population.

The New York Sector

In the final three decades of the century, population of the 14 New York counties in the Region can be expected to grow by 0.5 percent a year--an annual rate significantly below that projected for the entire Region or experienced by the sector in recent decades. The projected increase of two million inhabitants corresponds to roughly two-thirds the actual growth experienced in the preceding "high growth" era between 1940 and 1970. In all, 14.3 million persons, about 58 percent of the Region, will likely live in the New York sector by 2000.

Table 4

NEW YORK STATE SECTOR

POPULATION, GROWTH and DENSITY: 1940-1970; 1970-2000

	POPULATION (Thousands)		GROWTH (Thousands)		GROWTH (Percent per Year)		GROSS DENSITY (Persons per Square Mile)	
	1970	2000	1940 to 1970	1970 to 2000	1940 to 1970	1970 to 2000	Amount 1970	Amount 2000
Nassau-Suffolk	2,555.8	3,550	1,952	994	4.93	1.10	2,138	2,96
Rockland-Westchester	1,124.3	1,500	477	376	1.85	0.97	1,834	2,44
Mid-Hudson	694.5	1,220	291	525	1.84	1.89	173	30
New York City	7,895.5	8,000	441	105	0.19	0.04	26,353	26,70
Sector Total	12,270.2	14,270	3,161	2,000	1.00	0.50	2,006	2,3
Region	19,755.8	24,580	6,190	4,824	1.26	0.73	1,550	1,9

Sources: Population - U.S. Census of Population; Density - Based on U.S. Census of Areas, 1940 a local government sources; Growth and Projections - Regional Plan Association.

The two Long Island counties of Nassau and Suffolk would get almost half the New York State sector growth--an increase of about one million between 1970 and 2000. Two other suburban counties, Rockland and Westchester, can expect to share an increase of 376,000 in the same period. Five counties in the Mid-Hudson area would almost double present day population with a growth of more than 500,000 by century's end. Population in New York City would remain basically stable.

The counties of New York City. Projection of a 100,000 person increase in the population of New York City between 1970 and 2000 amounts to a forecast of virtual population stability and contrasts with earlier assumptions that net population losses would prevail as City residents continued to empty into the suburbs. This projection of a stationary eight million population level is based on an expectation that employment will continue growing, thereby attracting more professional and service workers to the City, and that new apartment construction will more than replace removal of stock and accommodate demand from increasing number of smaller households.

Table 5

NEW YORK STATE SECTOR, THE COUNTIES OF NEW YORK CITY
POPULATION, GROWTH and DENSITY: 1940-1970; 1970-2000

	POPULATION (Thousands)		GROWTH (Thousands)		GROWTH (Percent per Year)		GROSS DENSITY (Persons per Square Mile)	
							Amount	
	1970	2000	1940 to 1970	1970 to 2000	1940 to 1970	1970 to 2000	1970	2000
Bronx	1,471.7	1,350	77	- 122	0.17	-0.29	35,066	32,166
Brooklyn	2,602.0	2,450	- 96	- 152	-0.10	-0.19	37,531	35,338
Manhattan	1,539.2	1,500	- 351	- 39	-0.76	-0.08	69,965	68,182
Queens	1,987.2	2,200	689	213	1.43	0.33	18,298	20,258
Staten Island	295.4	500	121	205	1.77	1.76	5,120	8,666
Total City	7,895.5	8,000	441	105	0.19	0.04	26,353	26,702
Sector	12,270.2	14,270	3,161	2,000	1.00	0.50	2,006	2,333
Region	19,755.8	24,580	6,190	4,824	1.26	0.73	1,550	1,928

Sources: Population - U.S. Census of Population; Density - Based on U.S. Census of Areas, 1940 and local government sources; Growth and Projections - Regional Plan Association.

Even though total population would be stationary, the distribution of inhabitants among the City's five boroughs, which are also counties, would be shifting throughout the intervening 30 years. Queens and Staten Island (Richmond County) will continue growing. In Queens, an increase of 213,000 residents will likely occur as remaining vacant parcels are filled with apartments and single family areas are transformed into multi-family districts. This growth would exceed one-third of that received in Queens during the 30 years preceding 1970. Staten Island, with open land and major developments already planned, can expect population to continue expanding about as fast as that in the Region as a whole. The expected increase of 205,000 will be almost double the growth experienced during the three decades prior to 1970. These two boroughs, which together accommodated less than one-fourth of the City's population in 1950 might hold one-third of all New York City residents by 2000.

The Bronx and Brooklyn can look forward to three decades of population loss. The net decline that set in during the 1950's was only temporarily halted in the 1960's. In the century's final three decades the Bronx will likely see its 1.5 million population decline by more than 120,000 persons as those who can leave outdated and overdense housing stock secure better shelter. Continued suburbanization and generally smaller households will likely account for most of the projected 150,000 net population loss in Brooklyn. This decline would be half again as large as that experienced in the 30 years before 1970.

Only Manhattan, which has seen its population rise and fall throughout the decades of this century, is likely to see a current trend of population decline halted in the last decades of the century. The exodus from Manhattan may well continue until the mid-1980's, when significant additions to the housing stock will be able to accommodate the present population level of 1.5 million persons in many more smaller households.

Despite the net losses of population foreseen by this projection, Manhattan, Brooklyn and the Bronx--in that order--would remain the most dense counties in the New York Urban Region. Although a slight increase in density can be expected to occur in the City as a whole during the century's final decades, the share of the Region's residents making New York City their home will continue to decline. Nearly all of the population growth would occur outside the City. Thus, the City, which held half the Region's population in 1950, will by 2000 house about one-third of the Region's inhabitants.

Long Island suburbs. An expected population growth of almost one million in Nassau and Suffolk would bring the total population of these suburban counties to over 3.5 million persons in 2000--about 14 percent of the total population expected to inhabit the Region that year. In 1970 nearly 13 percent of the Region's population lived in these counties.

Table 6

NEW YORK SECTOR, LONG ISLAND SUBURBS
POPULATION, GROWTH and DENSITY: 1940-1970; 1970-2000

	POPULATION (Thousands)		GROWTH (Thousands)		GROWTH (Percent per Year)		GROSS DENSITY (Persons per Square Mile)	
							Amount	
	1970	2000	1940 to 1970	1970 to 2000	1940 to 1970	1970 to 2000	1970	2000
Nassau	1,428.8	1,600	1,022	171	4.27	0.38	4,790	5,364
Suffolk	1,127.0	1,950	930	823	5.99	1.84	1,256	2,173
Long Island	2,555.8	3,550	1,952	994	4.93	1.10	2,138	2,969
New York Sector	12,270.2	14,270	3,161	2,000	1.00	0.50	2,006	2,333
Region	19,755.8	24,580	6,190	4,824	1.26	0.73	1,550	1,928

Sources: Population - U.S. Census of Population; Density - Based on U.S. Census of Areas, 1940, and local government sources; Growth and Projections - Regional Plan Association.

Suffolk County which has perhaps the most land in the New York portion of the Region available for relatively easy, large-scale housing development, would receive an increase of more than 800,000 persons which is about three-quarters of its total 1970 population. It would receive, in the final 30 years of this century, a population increase about 90 percent as large as that received in the preceding 30 years. Its annual rate of growth would be two-and-a-half times as fast as that forecast for the Region's full population in the same period, although the rate would be only one-third of what it was between 1940 and 1970. In effect, the wave of suburban development that struck Nassau County (which is the closest to the Core) during these peak years of post-war growth, will continue to move to the available land in Suffolk County, but at an attenuated rate.

Nassau, four times as densely settled as Suffolk, can expect population to expand by some 170,000 residents--about one-sixth the amount of growth it received between 1940 and 1970. Accordingly, Nassau's yearly rate of growth would be half that of the Region throughout the 30 year projection period. Nassau registered the second fastest growth rate in the Region during the suburbanization of the 1950's, but with the filling of most available land, the annual growth rate fell to one of the Region's lowest in the 1960's. It is expected to continue slowing its rate of expansion even though developers, taking advantage of Nassau's proximity to the Core, may accelerate apartment construction in the near future.

Mid-Hudson Counties

Five counties in the Mid-Hudson area are expected to add more than half a million persons to a 1970 population of almost 700,000 creating, by the end of the century, a population almost as large as the Denver, Colorado metropolitan area. Containing about one-third of the Region's land mass, these counties would--even with this growth--accommodate only five percent of the Region's population by 2000.

Table 7

NEW YORK SECTOR, MID-HUDSON COUNTIES

POPULATION, GROWTH and DENSITY: 1940-1970; 1970-2000

	POPULATION (Thousands)		GROWTH (Thousands)		GROWTH (Percent per Year)		GROSS DENSITY (Persons per Square Mile) Amount	
	1970	2000	1940 to 1970	1970 to 2000	1940 to 1970	1970 to 2000	1970	2000
Dutchess	222.3	375	101	153	2.06	1.76	272	460
Orange	221.7	400	82	178	1.54	1.98	267	482
Putnam	56.7	140	40	83	4.17	3.06	241	595
Sullivan	52.6	75	14	22	1.09	1.19	53	77
Ulster	141.2	230	54	89	1.62	1.64	124	201
Mid-Hudson	694.5	1,220	291	525	1.84	1.89	173	304
New York Sector	12,270.2	14,270	3,599	2,106	1.00	0.50	2,006	2,333
Region	19,755.8	24,580	6,190	4,824	1.26	0.73	1,550	1,928

Sources: Population - U.S. Census of Population; Density - Based on U.S. Census of Areas, 1940, and local government sources; Growth and Projections - Regional Plan Association.

The Mid-Hudson area, made more accessible by highway construction of the past two decades, has been the recipient of rapid population growth which will likely continue throughout the remainder of this century as these counties attract more suburban migrants. Growth rates in this area will likely rank among the highest in the Region. Putnam County, for example, can be expected to maintain the Region's fastest annual growth rates through the century's final decades; the growth rate of Orange County may well rank fourth from the highest by 1985. Indeed, population in the Mid-Hudson which grew only slightly faster than that of the entire Region in the past 30 years, may grow three times faster than the regional average in the next 30 years.

Even so, densities will remain among the Region's lowest. Sullivan County, with a projected density of 76 persons per square mile in 2000, would maintain its stature as the least dense of all 31 counties. Ulster County, with a projected density of 201 persons per square mile in 2000, would follow, ranking next to the lowest. Orange County can be expected to grow faster than Dutchess because Orange not only offers better highway access but also because of local policies encouraging residential settlement.

Rockland and Westchester

Rockland and Westchester Counties, with only five percent of the Region's land area, can expect a population of 1.5 million by 2000, representing six percent of the Region's total. In Westchester, a gain of 256,000 persons would push its growth rate slightly above that anticipated for the Region as a whole, but reflect a far slower rate of future expansion than experienced in the past. By century's end, Westchester population would exceed one million.

Westchester County is really two areas of settlement, divided roughly at the narrowest point. Southern Westchester, which includes the cities of Yonkers, White Plains, Mount Vernon, and New Rochelle, has 75 percent of the County's population, and during the century's final three decades can expect to receive one-third of its total population growth. Northern Westchester, with a smaller population but 70 percent of the County's land area and the most potential for development, can be expected to receive two-thirds of the projected growth.

Southern Westchester will likely increase its population by 80,000 (or about 12 percent) to a total of 750,000 residents in the years between 1970 and 2000. Most of this growth would occur through the filling of available land with multi-family housing, a trend which is already underway. The current density of about 5,000 persons per square mile--equal to the densities of Staten Island and Nassau County--would increase to almost 6,000 persons per square mile by 2000.

Table 8

NEW YORK SECTOR, ROCKLAND and WESTCHESTER COUNTIES
POPULATION, GROWTH and DENSITY: 1940-1970; 1970-2000

	POPULATION (Thousands)		GROWTH (Thousands)		GROWTH (Percent per Year)		GROSS DENSITY (Persons per Square Mile) Amount	
	1970	2000	1940 to 1970	1970 to 2000	1940 to 1970	1970 to 2000	1970	2000
Rockland	229.9	350	156	120	3.83	1.41	1,288	1,961
Westchester	894.4	1,150	321	256	1.49	0.83	2,058	2,646
Total	1,124.3	1,500	477	376	1.85	0.97	1,834	2,447
New York Sector	12,270.2	14,270	3,161	2,000	1.00	0.50	2,006	2,333
Region	19,755.8	24,580	6,190	4,824	1.26	0.73	1,550	1,928

Sources: Population - U.S. Census of Population; Density - Based on U.S. Census of Areas, 1940, and local government sources; Growth and Projections - Regional Plan Association.

Northern Westchester will likely grow to about 1,300 per square mile--approximately the density of present day Rockland County. An addition of about 175,000 would increase population to 400,000 in 2000, a sizable increase but still less than would be expected if housing developments were less constrained by restrictive zoning suitable to the topography.

In Rockland County, highway construction completed during the 'Fifties greatly accelerated housing construction and, in turn, population growth. Ranking as the Region's seventh fastest growing County in the 1950's, Rockland became the fourth most rapidly expanding County in the 1960's. In the most recent decade, Rockland's population grew by more than 90,000 persons--an increase of 60 percent that established a 1970 population level of almost 230,000. In the remaining 30 years of this century, Rockland will likely grow twice as fast as the Region, adding 120,000 to its population, about three-fourths the 156,000 persons added in the last 30 years. Its growth is expected to level off as easily developed land is consumed.

New Jersey Sector

More than 8.2 million people will likely inhabit the 14 counties within the New Jersey Sector of the Region by the year 2000. This population would result from an increase of 2.4 million persons above the 1970 population--fully half the population increase projected for the entire Region. Every county can expect significant demographic changes in this 30 year period. For example, six counties hugging the perimeter of New York City, creating an industrial corridor that can be seen along major highways, will likely increase their population by one million persons. Another cluster of three counties, sandwiched between New York and the Philadelphia metropolitan area to the south would add over 700,000 to their combined populations thereby experiencing an increase greater than that which occurred in the high growth era following World War II. A third group of five partially urban and partially rural counties to the north will likely add about two-thirds of a million persons by century's end--growing at an annual rate three times greater than population in the Region as a whole.

Table 9

NEW JERSEY SECTOR
POPULATION, GROWTH and DENSITY: 1940-1970; 1970-2000

	POPULATION (Thousands)		GROWTH (Thousands)		GROWTH (Percent per Year)		GROSS DENSITY (Persons per Square Mile) Amount	
	1970	2000	1940 to 1970	1970 to 2000	1940 to 1970	1970 to 2000	1970	2000
Industrial Corridor *	4,026.4	5,025	1,272	999	1.27	0.75	3,991	4,980
Central New Jersey **	974.3	1,700	578	725	3.05	1.87	725	1,266
Northwestern New Jersey ***	803.0	1,485	486	682	3.11	2.07	383	708
New Jersey Sector	5,803.7	8,210	2,337	2,406	1.72	1.16	1,304	1,845
Region	19,755.8	24,580	6,190	4,824	1.26	0.73	1,550	1,928

* Bergen, Essex, Hudson, Middlesex, Passaic, and Union.
** Mercer, Monmouth, Ocean.
*** Hunterdon, Morris, Somerset, Sussex, and Warren.

Sources: Population - U.S. Census of Population; Density - Based on U.S. Census of Areas, 1940, and local government sources; Growth and Projections - Regional Plan Association.

Table 10

NEW JERSEY SECTOR, THE INDUSTRIAL CORRIDOR

POPULATION, GROWTH, DENSITY: 1940-1970; 1970-2000

	POPULATION (Thousands)		GROWTH (Thousands)		GROWTH (Percent per Year)		GROSS DENSITY (Persons per Square Mile) Amount	
	1970	2000	1940 to 1970	1970 to 2000	1940 to 1970	1970 to 2000	1970	2000
Bergen	897.1	1,150	488	253	2.64	0.83	3,845	4,929
Essex	932.3	1,000	93	68	0.35	0.24	7,289	7,819
Hudson	609.3	725	-43	116	-0.23	0.58	13,479	16,040
Middlesex	583.8	1,000	367	416	3.07	2.08	1,866	3,197
Passaic	460.8	550	152	89	1.35	0.58	2,467	2,944
Union	543.1	600	215	57	1.68	0.33	5,273	5,825
Total	4,026.4	5,025	1,272	999	1.27	0.75	3,991	4,980
New Jersey Sector	5,803.7	8,210	2,337	2,406	1.72	1.16	1,304	1,845
Region	19,755.8	24,580	6,190	4,824	1.26	0.73	1,550	1,928

Sources: Population - U.S. Census of Population; Density - Based on U.S. Census of Areas, 1940, and local government sources; Growth and Projections - Regional Plan Association.

The industrial corridor. Population in these six counties--Bergen, Essex, Hudson, Middlesex, Passaic, and Union--is likely to increase by one million persons. Combined population will exceed five million and accommodate about one-fifth of the Region's population by 2000. Densities, which are exceeded only by the boroughs of New York City and Nassau County, would increase by an average of 25 percent in this area of 1,000 square miles. By 2000, about one million persons would inhabit Middlesex. Hudson County will probably regain population lost during the three decades before 1970. Hudson County is expected to add over 100,000 persons, as high density, centralized living becomes more attractive with

new apartment construction and redevelopment. The City of Newark--not shown in the above table--is expected to end the century by stabilizing its current population at approximately 400,000. A gain of nearly 70,000 in Essex County, outside of Newark, is expected. A growth of employment in the office industry, an expected increase in apartment living near the urban centers, and major residential development (such as the Meadowlands and the waterfront of Jersey City) would be responsible for reversing an established trend of population decline in older urban counties.

Large tracts of developable land in the relatively unsettled northern portions of both Bergen and Passaic Counties will serve as an impetus for future development. It is expected that by century's end, population in Bergen County will exceed one million inhabitants as a combination of new single-family and garden-type apartments lure more than a quarter of a million new residents. Passaic County can expect about one-third of this growth--approximately 90,000 new inhabitants--which would raise its population to more than a half-million persons by 2000. Development in northern Passaic would be less intense than in equally open northern Bergen County, because of topography which is less amenable to construction. Union County, which is already heavily built, can expect only fill-in development. It will grow the least of all counties in this Industrial Corridor, increasing its 1970 population approximately 10 percent, to a total of 600,000 in 2000.

Northwestern New Jersey counties. The population of the Region's five northwestern New Jersey counties--Hunterdon, Morris, Somerset, Sussex, and Warren--are projected to increase by 680,000 persons, creating a combined population of 1.5 million by century's end. Morris County would receive slightly more than half this increase, causing its present population of some 384,000 to nearly double in the century's final 30 years. Morris as well as the much less populous Sussex County would be growing by three times the average yearly rate of growth projected for population in the full Region.

NEW JERSEY SECTOR, NORTHWESTERN NEW JERSEY

POPULATION, GROWTH and DENSITY: 1940-1970; 1970-2000

	POPULATION (Thousands)		GROWTH (Thousands)		GROWTH (Percent per Year)		GROSS DENSITY (Persons per Square Mile) Amount	
	1970	2000	1940 to 1970	1970 to 2000	1940 to 1970	1970 to 2000	1970	2000
Hunterdon	69.7	125	33	55	2.14	1.96	160	288
Morris	383.5	740	257	357	3.79	2.20	820	1,582
Somerset	198.4	350	124	152	3.31	1.90	646	1,139
Sussex	77.5	150	48	72	3.26	2.22	147	285
Warren	73.9	120	24	46	1.29	1.62	204	332
Northwestern New Jersey	803.0	1,485	486	682	3.11	2.07	383	708
New Jersey Sector	5,803.7	8,210	2,337	2,406	1.72	1.16	1,304	1,845
Region	19,755.8	24,580	6,190	4,824	1.26	0.73	1,550	1,928

Sources: Population - U.S. Census of Population; Density - Based on U.S. Census of Areas, 1940, and local government sources; Growth and Projections - Regional Plan Association.

Projected growth would create a significant impact even in the least dense northwestern counties. Sussex County would nearly double its population, and Hunterdon would increase by 80 percent by the end of the century. Warren County would likely see a 60 percent increase in population in the years between 1970 and 2000.

Central Jersey counties. Combined growth of 725,000 persons in Mercer, Monmouth and Ocean Counties would create a population of 1.7 million persons by century's end. Most of the projected growth would result from continued suburban residential development which began in this area only in recent years. If population growth occurs as expected, the century's final decades will witness again three times that which occurred in these central Jersey counties in the three decades preceding 1970.

Table 12

NEW JERSEY SECTOR, CENTRAL NEW JERSEY
POPULATION, GROWTH and DENSITY: 1940-1970; 1970-2000

	POPULATION (Thousands)		GROWTH (Thousands)		GROWTH (Percent per Year)		GROSS DENSITY (Persons per Square Mile) Amount	
	1970	2000	1940 to 1970	1970 to 2000	1940 to 1970	1970 to 2000	1970	2000
Mercer	303.9	400	107	96	1.45	0.91	1,336	1,757
Monmouth	461.8	850	301	388	3.57	2.05	969	1,783
Ocean	208.5	450	171	241	5.90	2.58	326	704
Central New Jersey	974.2	1,700	578	725	3.05	1.87	725	1,266
New Jersey Sector	5,803.7	8,210	2,337	2,406	1.72	1.16	1,304	1,845
Region	19,755.8	24,580	6,190	4,824	1.26	0.73	1,550	1,928

Sources: Population - U.S. Census of Population; Density - Based on U.S. Census of Areas, 1940, and local government sources; Growth and Projections - Regional Plan Association.

This tier of counties, wedged between New York City and the Philadelphia metropolitan area, will likely expand population two-and-a half times faster than the Region as a whole. Indeed, Ocean County would then become the Region's second fasteat growing county in the period between 1985 and 2000, and Monmouth would have the third fastest rate in the same period.

More than half the growth anticipated in this central Jersey area will likely occur in Monmouth County, causing its average density--now just under the theoretical "urban" threshold of 1,000 persons per square mile--to increase by almost 85 percent. Monmouth and Mercer Counties, by 2000, may well have nearly equal average densities in excess of 1,700 persons per square mile, or about the same as present day Middlesex County. Population in Ocean County will more than likely double during the final decades of this century, though Ocean would remain less than urban.

Table 13

POPULATION IN THE REGION BY COUNTY: 1940 - 2000

(In Thousands)

	1940	1970	1985	2000	CHANGE 1940-1970	CHANGE 1970-2000
CONNECTICUT	989.7	1,681.8	1,970	2,100	197	210
Fairfield	418.4	792.8	950	1,000	375	207
Litchfield	87.0	144.1	175	200	57	56
New Haven	484.3	744.9	845	900	261	155
NEW JERSEY	3,466.8	5,803.7	7,185	8,210	234	241
Bergen	409.6	897.1	1,050	1,150	488	253
Essex	837.3	932.3	965	1,000	93	68
Hudson	652.0	609.3	660	725	-43	116
Hunterdon	36.8	69.7	100	125	33	55
Mercer	197.3	303.9	365	400	107	96
Middlesex	217.1	538.8	825	1,000	367	416
Monmouth	161.2	461.8	690	850	301	388
Morris	125.7	383.5	585	740	257	357
Ocean	37.7	208.5	345	450	171	241
Passaic	309.4	460.8	525	550	152	89
Somerset	74.4	198.4	285	350	124	152
Sussex	29.6	77.5	120	150	48	72
Union	328.3	543.1	575	600	215	57
Warren	50.2	73.9	95	120	24	46
NEW YORK	9,109.0	12,269.8	13,360	14,270	360	211
Excluding N.Y.C.	1,654.1	4,374.3	5,520	6,270	272	190
Dutchess	120.5	222.3	310	375	101	153
Nassau	406.7	1,428.8	1,530	1,600	1,022	171
Orange	140.1	221.7	315	400	82	178
Putnam	16.6	56.7	100	140	40	83
Rockland	74.3	229.9	310	350	156	120
Suffolk	197.4	1,127.0	1,650	1,950	930	823
Sullivan	37.9	52.6	65	75	14	22
Ulster	87.0	141.2	190	230	54	89
Westchester	573.6	894.4	1,050	1,150	321	256
New York City	7,455.0	7,895.5	7,840	8,000	441	105
Bronx	1,394.7	1,471.7	1,400	1,350	77	-122
Brooklyn	2,698.3	2,602.0	2,520	2,450	-96	-152
Manhattan	1,889.9	1,539.2	1,410	1,500	-351	-39
Queens	1,297.6	1,987.2	2,100	2,200	689	213
Richmond	174.4	295.4	410	500	121	205
RINGS OF DEVELOPMENT						
Core	8,362.4	8,591.3	8,490	8,625	228.9	33.7
Inner Ring	2,498.6	4,801.4	5,300	5,650	2,302.8	848.6
Intermediate Ring	1,972.9	4,889.8	6,620	7,740	2,916.9	2,850.2
Outer Ring	731.6	1,473.3	2,102	2,565	741.7	1,091.7
REGION TOTAL	13,565.5	19,755.8	22,515	24,580	6,185	4,830

Sources : Population - U.S. Census of Population
Projection - Regional Plan Association

III. HOUSING: GROWTH AND DEMAND

In an analysis of housing conditions made four years ago, Regional Plan Association observed that only half the annual demand for shelter in the New York Urban Region was being provided.* Even though construction rates of the 1960's had surpassed those of the post World War II boom of suburbanization, builders were just barely keeping pace with housing demands created by newly forming households. The equally important need of providing for rehabilitation and replacement of substandard housing already occupied was not being met, and prices for new homes had surpassed the financial reach of 80 percent of the Region's families. Accordingly, the Association recommended increasing the Region's annual housing supply between 50 and 100 percent, adding that the Region's housing future was "not optimistic."

Meeting the Region's Housing Needs

A revision of projected housing growth--based on the preceding population forecasts--and an analysis of construction trends established in the first years of this decade add little to promote optimism. Between 1970 and 1985, for example, population in the Region will likely increase by 14 percent while in the same period the number of households will likely grow by 27 percent--about twice as fast as population. Meanwhile, records show that annual production of standard housing units during the early 1970's dipped below the too low production rates of the 1960's.

The following section converts the projected population growth into households. It then estimates the total number of housing units needed in each county by 1985, considering the expected growth in new households, the growth in seasonal or vacation homes, and the units needed to create a market that would

*See Regional Plan News No. 91, "Housing Opportunities, an Analysis of New York City and its Northern and Eastern Suburbs for the New York State Urban Development Corporation," September 1969.

provide an acceptable level of price competition. Finally, the annual level of construction needed to meet this demand is calculated and compared with the annual rate of construction witnessed in the first years of this decade.

Households. The number of households (that is, families and groups of individuals as well as single persons who can be expected to seek a separate dwelling unit) will increase by 1.7 million creating a total of 8.1 million households in the Region by 1985. Most of this increase above the 1970 level of 6.4 million households will be caused by offspring born during the baby boom, who will be the young adults forming families and entering the job market. However, the revised population projections show that this generation will, on the average, have smaller-sized households than their parents. As parents, they are expected to raise fewer children, and more of them will marry later in life. The average household will likely decline from 3.07 persons in 1970 to an average of 2.77 in 1985. (In 1960, households in the Region averaged 3.19 persons.) Thus, while the demand for floorspace per dwelling could decline, the maturing boom generation will still create a powerful demand for an increased number of families.

About half the increase projected for the New York Region would occur in the New York State counties, where an increase of 800,000 will raise the 1970 total to almost five million households in 1985. In New Jersey an increase of 750,000 households will create a total just over 2.5 million households by 1985. Households in Connecticut will likely increase by 150,000, reaching a total of 678,000 in 1985.

It should be noted that while New Jersey counties would receive half the Region's population growth, they will get slightly less than half the growth in households, because much of New Jersey's population increase would be in the form of larger suburban families with children. New York counties, on the other hand,

would see much of the population increase taking the form of smaller-sized households--single persons, and the smaller households with one or two children and working parents. (Table 14 shows the increase in households experienced in each county between 1950 and 1970, and the projected number of households for each county in 1985.)

Dwelling units. To fully accommodate the Region's unfolding housing demand, the total supply of dwelling units should be expanded from 6.8 million units in 1970 to 8.9 million units by 1985. This 1985 total is comprised of (1) the projected increase of 1.7 million households for a total of 8.1 million year-round occupied dwelling units in 1985; (2) a 185,000 unit increase in seasonal home ownership, creating a total of 375,000 such units in 1985; and (3) an expansion of the 1970 vacancy rate to allow for a total of 385,000 unoccupied dwelling units available for sale or rent by 1985.

This total supply has been allocated by county in Table 14. The allocation assumes each new household will seek a separate housing unit, that each county will offer a comparable vacancy rate, and that seasonal homes will be situated mainly in rural, mountainous and oceanfront areas as they have been in the past. The margin of vacancy is established at four percent, a minimum level which allows for consumer choice and market competition. (Most housing experts say the normal vacancy rate should exceed five percent of the total housing stock. The Region's current two percent has been accompanied by a significant amount of household doubling up.)

Table 14

HOUSEHOLDS AND DWELLING UNITS IN THE REGION: 1950-1985

	1950		1960		1970		1985	
	House-holds	Dwelling Units	House-holds	Dwelling Units	House-holds	Dwelling Units	House-holds	Dwelling Units
Connecticut	328,602	351,556	429,571	465,075	521,110	548,521	678,000	729,500
Fairfield	143,872	153,716	194,314	208,997	243,806	254,618	325,000	348,000
Litchfield	28,915	33,866	36,442	43,343	45,550	51,052	63,000	74,000
New Haven	155,815	163,974	198,815	212,735	231,754	242,851	290,000	307,500
New Jersey	1,138,613	1,224,226	1,481,883	1,611,100	1,807,633	1,919,165	2,553,000	2,824,000
Bergen	157,396	162,427	230,578	236,696	279,625	283,311	375,000	392,000
Essex	256,661	260,870	289,008	299,832	302,582	312,416	350,000	370,000
Hudson	187,859	189,614	198,029	204,800	207,499	214,749	250,000	264,000
Hunterdon	12,606	14,081	16,077	18,029	21,063	22,267	35,000	40,000
Mercer	59,338	60,784	76,587	79,477	93,486	96,430	135,000	142,500
Middlesex	73,107	76,353	120,404	125,347	168,076	171,711	280,000	293,000
Monmouth	64,015	82,668	96,168	115,619	135,230	150,406	240,000	269,000
Morris	44,276	53,237	71,970	82,327	109,823	116,032	200,000	213,000
Ocean	17,720	38,485	33,207	71,657	68,362	110,311	140,000	248,500
Passaic	100,911	107,577	125,926	134,391	147,214	152,767	183,000	194,500
Somerset	26,349	27,742	40,083	42,323	57,013	58,310	95,000	99,500
Sussex	10,076	17,900	14,434	25,098	22,809	31,218	40,000	56,000
Union	112,255	114,849	150,179	154,180	171,580	174,330	195,000	204,000
Warren	16,044	17,639	19,233	21,324	23,271	24,907	35,000	38,000
New York	2,942,496	3,134,296	3,612,913	3,876,941	4,080,998	4,294,947	4,909,000	5,346,500
Dutchess	34,680	38,344	46,962	54,647	62,495	69,126	105,000	118,000
Nassau	188,666	206,701	348,729	366,303	401,056	410,391	465,000	485,000
Orange	43,253	50,964	53,919	67,133	65,607	76,753	107,500	128,500
Putnam	6,091	11,574	9,287	17,701	15,995	22,326	33,000	44,000
Rockland	21,659	25,382	34,699	38,988	60,359	62,401	92,500	96,500
Suffolk	71,652	108,402	173,412	224,451	295,587	334,979	505,000	588,000
Sullivan	12,314	35,419	14,112	45,020	16,865	47,401	24,000	92,000
Ulster	27,891	36,788	36,067	49,359	43,533	55,739	67,000	93,000
Westchester	176,309	187,257	241,281	254,766	282,629	291,550	395,000	414,500
Bronx	424,992	43,259	463,402	473,159	497,222	508,789	535,000	561,000
Brooklyn	795,762	814,134	850,555	875,757	876,119	902,622	925,000	974,000
Manhattan	625,897	635,944	695,771	727,424	687,283	714,593	725,000	777,000
Queens	461,834	495,308	582,986	617,077	690,056	708,316	800,000	836,000
Richmond	51,496	55,820	61,731	65,156	86,192	89,961	130,000	139,000
Region	4,409,711	4,710,078	5,524,367	5,953,116	6,409,741	6,762,633	8,140,000	8,900,000

Resulting housing needs. To create the housing supply called for in Table 14, the Region would not only have to construct an additional 2.1 million dwelling units, but in the process it would be required to counteract potential demolition and deterioration that would deplete the existing housing stock during the 15-year period. Table 15 provides, on an annual basis (for purposes of comparison with past performance), an estimate of the construction that would be needed to satisfy demands resulting from the growth in households, the expected increase in seasonal homes and the establishment of a minimum vacancy rate while simultaneously counteracting demolition and deterioration. The construction rates in Table 15 would see half the substandard housing, as estimated by Regional Plan Association and the Tri-State Regional Planning Commission, replaced by 1985. It would also meet housing losses caused by demolition and private renewal at a rate equivalent to 0.5 percent of the regional housing stock per year. (Obviously, differences occur here among the counties in proportion to their overall density.)

Thus, to furnish a total of 8.9 million standard housing units by 1985 the Region would have to build or rehabilitate about three million dwelling units in the 15 years after 1970--an average of almost 203,000 per year. Yet, in the first three years of this decade, actual construction has averaged only 94,000 units or 46 percent of yearly need. Thus, in the remaining years from 1973 to 1985, the Region would have to build 230,000 units annually to accommodate growth. The data suggest the relative increase in construction activity that would occur in each county if the household growth does occur as projected and if the housing market actually does respond to the total housing need.

Table 15

HOUSING: ANNUAL CONSTRUCTION 1950-72; ANNUAL NEED, 1970-84;
ANNUAL STARTS AS PERCENT OF ANNUAL NEED 1970-84

	Annual Construction			Annual Need	1970-72 Const. as	Annual Need
	1950-59	1960-69	1970-72	1970-84	% of 1970-84 Need	1973-84
CONNECTICUT	9,909	11,342	12,761	15,937	80	16,754
Fairfield	5,562	5,452	4,385	7,892	56	8,769
Litchfield	314	841	1,400	1,934	72	2,068
New Haven	4,033	5,049	6,886	6,111	112	5,917
NEW JERSEY	28,759	38,894	32,834	75,763	43	86,495
Bergen	5,647	5,054	3,575	8,919	40	10,255
Essex	3,472	3,658	1,750	7,124	25	8,468
Hudson	1,018	2,119	1,213	5,910	21	7,084
Hunterdon	138	413	413	1,392	30	1,637
Mercer	1,128	2,027	2,408	3,775	64	4,117
Middlesex	3,688	5,190	3,240	9,176	35	10,660
Monmouth	2,406	4,434	4,050	9,063	45	10,316
Morris	2,166	3,696	2,978	7,232	42	8,295
Ocean	2,235	4,272	8,464	9,814	86	10,151
Passaic	2,279	2,279	1,017	4,118	25	4,893
Somerset	926	1,722	1,132	3,122	36	3,620
Sussex	34	912	963	1,878	51	2,107
Union	3,487	2,603	1,216	3,149	39	3,632
Warren	135	515	415	1,091	38	1,260
NEW YORK	64,360	65,662	48,513	111,158	44	126,820
Dutchess	221	1,270	1,293	3,848	34	4,488
Nassau	15,886	5,318	2,685	6,953	39	8,020
Orange	423	1,384	2,222	4,128	54	4,604
Putnam	124	538	482	1,596	30	1,874
Rockland	986	2,698	2,795	2,635	106	2,595
Suffolk	10,353	12,160	12,073	18,662	65	20,309
Sullivan	5	150	272	3,476	08	4,277
Ulster	117	318	825	3,093	27	3,661
Westchester	6,465	4,949	3,431	10,344	33	12,072
NEW YORK CITY			22,435	56,423	40	64,920
Bronx	4,646	6,965	4,194	7,928	53	8,861
Brooklyn	6,637	7,801	4,628	14,395	32	16,837
Manhattan	6,594	9,208	6,107	16,592	37	19,213
Queens	11,178	9,963	3,986	13,461	30	15,830
Richmond	725	2,940	3,520	4,047	87	4,179
REGION	103,028	115,898	94,018	202,858	46	230,069

NOTE: Annual Construction--Average annual number of dwelling units authorized by building permits in each period. Annual Need--Average number of units needed (either new units or rehabilitation of obsolete units) to provide an annual supply that would achieve the total housing need projected for 1985. 1970-72 Construction as a Percent of 1970-84 Annual Need --This is the percentage of the projected annual rate of housing need being satisfied by the annual rate of construction recorded in the first three years of this decade (i.e., average annual construction for 1970-72 period divided by annual need for 1970-84 period, multiplied by 100). Annual Construction 1973-84--The annual rate of construction of new and rehabilitated units needed through the remainder of the projection period: a low rate of construction activity during the first three years of the 1970's means an increase in annual construction needs throughout the balance of the period.

IV. GROWTH AND CHANGE IN THE REGION'S ECONOMY

The Changing Pattern of the Region's Employment

Three major economic trends which have emerged in the Region during the past few decades demonstrate the relationship between shifts in the composition of the Region's economy and changes in the locational pattern of economic activity. These trends--very much in evidence in the New York Urban Region--establish a fairly predictable course for gauging future employment growth by counties, at least until the mid-1980's.

The trends. One trend is the rise in white collar employment and a corresponding decline in manufacturing jobs at plant sites. The second trend is the general tendency of manufacturing firms to locate in suburban areas where land for modern horizontal plants and easily accessible highways are available. (In contrast, most firms in the growing office industry tend to remain clustered in concentrations of population.) The third trend of significance stems from rising affluence or increases in real per capita incomes. This trend stimulates an expansion of the population-serving sector of the Region's economy, a sector which embraces such industries as construction, transportation, trade, government, and the professional-personal-recreational services. Unlike the experience of past decades, residence based employment will (in the wake of a decline in the average family size) grow less in child-related functions, such as elementary education, and more in income-responsive activities, such as travel and recreation (as relatively smaller families spend more on amenities).

On balance, then, the nature of growth suggests a future in which geographic concentration of employment rather than spatial spread will characterize job location and the course of regional employment growth by county. Table 16 summarizes the magnitude and distribution of growth until 1985 by ring of development in the Region.

Table 16

Employment Growth in the Region by Ring of Development,
1970 to 1985

	1970 (in 000's)			1985		
	Plant Site	Office Building	Total	Plant Site	Office Building	Total
Core	888.23	1,324.81	4,597.53	703.94	1,624.60	4,869.41
Inner Ring	485.93	251.75	1,868.83	507.81	337.90	2,292.38
Intermediate Ring	478.73	217.92	1,693.65	527.19	431.00	2,455.78
Outer Ring	113.52	56.19	463.58	140.46	113.30	690.77
Region	1,966.41	1,850.67	8,623.59	1,879.40	2,506.79	10,308.33

Source: Regional Plan Association.

Table 17

The Distribution of Employment in the Region by Ring of Development,
1970 and 1985

	1970			1985		
	Plant Site	Office Building	Total	Plant Site	Office Building	Total
Core	45.2%	71.6%	53.3%	37.5%	64.8%	47.2%
Inner Ring	24.7	13.6	21.7	27.0	13.5	22.3
Intermediate Ring	24.3	11.8	19.6	28.0	17.2	23.8
Outer Ring	5.8	3.0	5.4	7.5	4.5	6.7
Region	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: Regional Plan Association.

Accordingly, the Region can expect employment to increase 20 percent to a total of 10.3 million jobs in the period between 1970 and 1985. Plant site employment will likely continue its gradual decline, dropping below 1.9 million jobs by the mid-1980's. Jobs based in detached office buildings would, in turn, overtake manufacturing as the Region's largest employer: an expected addition of two-thirds of a million such jobs would create a total of 2.5 million office jobs by 1985. All other employment--comprised mostly of white collar and service positions in the population serving sector--would account for the largest numerical gain of 1.1 million jobs. However, this group would grow neither as fast as it has in the past, nor as quickly as the burgeoning office industry in the future.

By 1985, the population serving industries, which consistently represent over half the total employment, would continue to account for 57 percent of the Region's jobs. They will be located mainly in residence-related, commercial, public, and institutional space. Office buildings will house one-quarter of the Region's employment, compared to less than 20 percent a decade ago. Merely 18 percent of the jobs would remain for dispersal among industrial sites, a sharp contrast to the prior decade when factories accommodated fully 27 percent of the Region's employment.

Redistribution of factory jobs. The anticipated decline in plant site employment between 1970 and 1985 will be concentrated in the Region's Core which will likely lose in excess of 180,000 such jobs. The suburban counties would simultaneously gain almost 100,000 positions, as the heavy exodus from old, industrialized sections of New York City, Newark, and Hudson County is only partially stemmed by city policies to retain some firms and attract others to new or redeveloped space. In all, the Region will likely sustain a net loss of 87,000 plant site jobs. Counties of the inner suburban ring, with little land to spare for extensive manufacturing operations and some out-migration experienced among

existing establishments, would gain the fewest plant site jobs. Bergen County will likely capture the bulk of Inner Ring plant site job growth, especially its northwestern townships and the Meadowlands district. The Intermediate Ring counties, with large undeveloped tracts, active industrial park development, extensive mileage on limited access highways, and labor force advantages over the older, white collar suburbs, will gain the most plant site employment. Over half the suburban gain is expected in four Intermediate Ring counties which are strategically positioned along the Boston-Washington corridor: Middlesex, Monmouth, and Somerset Counties, New Jersey, and southern Fairfield County, Connecticut. Limits to growth of plant site employment in the peripheral, Outer Ring counties have been set largely by a lack of competitive advantage in inter-regional access. Moreover, characteristically lower residential densities and fewer technical training facilities have made it difficult for employers in the Outer Ring to amass adequate blue collar jobs. Connecticut and New Jersey counties will fare best in capturing Outer Ring industrial growth.

Distribution of office jobs. In direct contrast to manufacturing trends, office employment growth will benefit all of the Region's counties and the Core area to the greatest extent over the 15-year period. The centripetal force behind office location is the advantage or economy derived from face-to-face communication in the transaction of business within or between a multiplicity of firms. Nowhere are the qualities of nearness and diversity provided to the extent they are available in the Manhattan Central Business District. Thus, of the 300,000 office jobs, or nearly half of the Region's gain, expected to locate in the Core by 1985, at least three-quarters, or 225,000 jobs, will be drawn by the Manhattan CBD.* Another 40,000

*One should note that this figure does not represent a net increment to Manhattan CBD employment, since it includes double job holding and will be offset by continuing manufacturing losses.

jobs represent spin-offs from Manhattan firms and headquarters-related operations that remain in the Core for its access and labor force advantages but are more efficiently accommodated in subcenters, such as Downtown Brooklyn and Jamaica. Lastly, growth should accrue to the Core from some expansion of commercial activity in Newark and office development in the Meadowlands district.

Inner Ring counties such as Nassau, southern Westchester, and Bergen experienced rapid office growth over the past decade from the suburbanization of headquarters, the formation of regional or business service offices, and the location of clerical-intensive operations. They will continue to grow, adding an equivalent amount of office jobs but at a slower pace to 1985, while the bulk of suburban office growth settles in the Intermediate Ring. This group of counties will capture more than 200,000 office jobs, nearly twice the annual performance of the past decade.

The Intermediate Ring's attraction for office jobs will stem largely from the competition of prestigious suburbs with Manhattan for elite corporate headquarters, the weakening of ties to the CBD by certain large manufacturing front offices that can internalize support services, and the disproportionately high share of population growth expected in the area, creating a climate for more local office activity such as branch banking. Particularly rapid office growth is anticipated for Monmouth, Morris, Somerset, Rockland, and western Suffolk, while southern Fairfield and northern Westchester will continue to attract major corporate headquarters but relatively fewer population-related office jobs.

Although Outer Ring counties may draw few elite office employers or large clerical operations, their office sector will likely double by 1985 primarily as a function of local demands for community and personal services. Jobs will be distributed throughout this area in line with the expected pattern of population settlement. (For a more detailed examination of office trends and projections, the reader is referred to the Regional Plan Association publication,

The Office Industry: Patterns of Growth and Location, MIT Press, 1972. Its office projections for the near term remain valid, despite the downward revision of population projections in this report.)

Distribution of population serving employment. The remaining employment, neither office nor industrial, is largely population-serving; its growth and distribution is mainly residence- and income-related. However, between rings of the Region, some hierarchical effects are to be noted. Just as the large shopping center services more than its immediate environs, so too Manhattan provides for more than its people need; the Core accommodates more than its portion of regional population, and the Intermediate and Outer Rings import services from higher density areas. With population growth and increasing residential densities, these hierarchical disparities are diminished. The Intermediate Ring is forecast to gain the largest share of population-serving employment, 45 percent of the total, followed by the Inner Ring, 28 percent of total, while the Core and Outer Ring share in the remaining growth. Historical relationships between growth of population, income, and population-serving employment by county formed the basis for individual county forecasts.

Table 18 provides the specific job forecasts by county, from 1970 to 1985.

Table 18

EMPLOYMENT IN THE REGION - 1970, 1985

(IN THOUSANDS)

	1970			1985		
	Plant-Site	Office Building	Total	Plant-Site	Office Building	Total
CONNECTICUT	242.42	79.17	689.19	256.40	142.99	877.75
Fairfield	120.85	38.55	326.51	130.00	74.40	426.42
Litchfield	18.12	3.76	48.76	26.40	6.46	67.00
New Haven	103.45	36.86	313.92	100.00	62.13	384.33
NEW JERSEY	701.13	347.72	2,286.02	730.05	521.88	2,974.90
Bergen	105.58	41.71	344.23	122.50	69.95	485.74
Essex	107.39	98.92	436.32	86.00	119.47	472.25
Hudson	99.89	42.42	260.34	78.50	46.87	274.93
Hunterdon	6.33	1.72	21.25	9.30	3.40	32.56
Mercer	29.51	33.25	140.65	23.50	47.69	174.94
Middlesex	74.74	23.24	208.38	92.50	45.59	326.65
Monmouth	24.30	14.17	129.68	42.00	36.09	227.54
Morris	30.07	19.44	122.98	31.50	41.87	195.58
Ocean	4.72	5.20	46.28	9.00	9.41	73.02
Passaic	77.58	21.86	194.44	73.00	33.81	223.64
Somerset	30.19	6.94	72.57	43.50	17.67	119.57
Sussex	3.12	2.10	17.89	4.75	3.55	27.71
Union	95.23	34.41	263.72	101.00	41.34	306.33
Warren	12.48	2.34	27.29	13.00	5.17	34.44
NEW YORK	1,022.86	1,423.78	5,648.38	892.95	1,841.92	6,455.68
Dutchess	19.68	14.12	87.11	18.00	30.40	129.63
Nassau	106.05	66.44	524.63	110.00	80.98	640.19
Orange	15.66	8.78	74.26	14.40	17.72	104.78
Putnam	1.31	1.38	9.76	1.55	5.84	21.03
Rockland	11.79	7.51	64.46	14.60	20.76	95.47
Suffolk	58.48	32.16	288.85	69.00	64.19	459.73
Sullivan	1.02	1.53	18.84	2.00	2.21	24.52
Ulster	14.60	4.95	48.92	14.60	10.31	70.01
Westchester	57.05	58.55	338.03	57.00	96.11	448.21
New York City	737.22	1,228.36	4,193.52	591.80	1,513.40	4,462.11
Bronx	50.03	44.69	299.92	46.00	55.18	308.28
Kings	197.10	111.95	719.09	172.00	130.55	724.82
New York	352.87	975.69	2,556.40	250.00	1,203.45	2,728.51
Queens	131.13	83.78	561.62	120.80	107.50	626.25
Richmond	6.09	12.25	56.49	3.00	16.72	74.25
31 COUNTY REGION	1,966.41	1,850.67	8,623.59	1,879.40	2,506.79	10,308.33
22 COUNTY REGION	1,773.06	1,758.96	7,939.79	1,676.85	2,356.46	9,419.80
N.Y.- NE N.J. SCA	1,591.26	1,681.96	7,312.47	1,470.90	2,192.01	8,510.40

Note: Employment estimates are mid-March of given year; differences will be noted with various state Departments of Labor estimates for annual average employment.

Source: Regional Plan Association

Lastly, mention is made of the overall relationship between population and employment, and the impact of the national recession on 1970 job levels. Between 1970 and 1985, population is expected to dip in the Region's Core, while employment will grow a modest six percent. The resident labor force will likely remain stable, at or about the present level of under four million. The clear implication is for a rise in commutation to the Core, if an increase in multiple job-holding does not absorb the added opportunities. The Inner Ring will similarly experience a faster rate of employment formation than population and labor force growth. In this area, however, the added opportunities can amply be absorbed by a large resident labor force that traditionally has formed the commutershed of Manhattan. While such a statistical relationship between jobs and workers is never fully matched in reality, the implication is for increased economic self-sufficiency in the dense Inner Ring suburbs and reduced commutation to jobs in the Core. In the Intermediate Ring, however, rapid population growth is still leading--rather than following--economic development. Thus, despite the location of nearly half the Region's employment growth in this area by 1985, a mounting supply of resident workers will likely be holding jobs in the Region's Core and Inner Ring. Viewed in the emerging context of population settlement, the regional pattern of employment growth and location has costly transportation implications, as an enlarged commutershed embracing the dispersed Intermediate Ring suburbs promotes lengthened work trips without providing adequate development densities for supporting mass transit.

The national recession had a decidedly sharp impact on employment levels in New York City. Evidence suggests that the City's economy lost roughly 200,000 jobs between 1970 and 1972, with a slow recovery only beginning to become apparent by 1973. Prior to this cutback, New York's white collar economy showed a remarkable responsiveness to the upward pace of national economic development. Office work is, after all, a rather income-elastic activity for the firm. When the economy

speeds up, expansion takes place slowly; when it slows down, contraction of a headquarters or support service staff is rapid. The employment projections assume that the City can fully recoup recent losses and experience the additional gain of roughly 250,000 jobs by 1985, in accord with Census Bureau projections that productivity will resume a three percent annual rise over the forecast period and the Gross National Product will top two trillion dollars by 1985.

V. INCOME

While the level or growth of income in a region is largely a function of productivity, at the county scale it is both a reflection of local economic conditions and the particular segment of the regional housing market that is represented within an area. Thus, historically, per capita county income bears a quite consistent correlation with regional income, gradually converging or diverging over time as counties develop in a rather homogeneous manner. Table 19 provides a projection of future per capita income by county, given the continuation of past trends. It should not be regarded as policy or a prescription; moreover, it should be noted that radical departures from present development patterns--particularly residential patterns--can begin within the limited purview of 15 years, given sweeping institutional changes like statewide zoning. Such influences would obviously alter the rate of income growth for individual counties and likely produce a more equitable distribution of income throughout the Region.

Table 19

PER CAPITA INCOME IN THE REGION: 1950-1985 *

In Constant 1969 Dollars

	1950	1960	1970	1985
CONNECTICUT				
Fairfield	2,580	3,406	4,659	7,965
Litchfield	2,063	2,716	3,711	6,350
New Haven	2,091	2,675	3,550	5,850
NEW JERSEY				
Bergen	2,503	3,317	4,554	7,820
Essex	2,479	2,992	3,729	5,280
Hudson	2,008	2,487	3,191	4,860
Hunterdon	1,735	2,479	3,606	6,515
Mercer	2,092	2,700	3,623	6,080
Middlesex	1,883	2,529	3,521	6,165
Monmouth	1,811	2,526	3,627	6,525
Morris	2,391	3,084	4,125	6,870
Ocean	1,710	2,253	3,083	5,290
Passaic	1,893	2,548	3,548	6,185
Somerset	2,136	2,905	4,093	7,250
Sussex	1,714	2,326	3,284	5,870
Union	2,544	3,206	4,191	6,675
Warren	1,611	2,160	3,163	5,820
NEW YORK				
Dutchess	1,669	2,307	3,295	5,920
Nassau	2,730	3,504	4,679	7,820
Orange	1,707	2,236	3,040	5,175
Putnam	2,085	2,614	3,422	5,585
Rockland	1,828	2,576	3,730	6,765
Suffolk	1,773	2,396	3,350	5,880
Sullivan	1,672	2,181	2,931	4,865
Ulster	1,763	2,258	3,014	5,050
Westchester	3,211	3,966	5,078	7,730
Bronx	2,072	2,427	2,925	4,025
Brooklyn	1,954	2,403	3,061	4,700
Manhattan	2,630	3,549	5,233	10,030
Queens	2,393	3,050	4,034	6,600
Richmond	1,855	2,504	3,496	6,200
REGION	2,267	2,906	3,863	6,397

*Money income, that earned mostly in wages and salaries.

Source: Regional Plan Association based on U.S. Bureau of the Census.

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NEW REGIONAL PROJECTIONS:

A SUMMARY

Abrupt changes in demographic trends that over the past decades have repeatedly scrambled population forecasts for the United States again require revision of even the most recent projections for the New York Region. Population projections more than merely surmise about the future. They increasingly serve as the raw materials on which business plans and government policies are made.

In the Urban Region--which consists of New York City and 26 surrounding counties in Connecticut, New Jersey and New York--population projections depend on changes in national population modified by economic analyses of the Region's role in the nation's economy. This report, then, begins with the factors that explain population trends in the United States.

The Volatile Fertility Factor

Reproductive behavior, the most important determinant of population size, is also the most mercurial and difficult to predict. Death rates, for example, have changed little and then only gradually, and immigration which Congress has stabilized at 400,000 annually represents only 0.2 percent of the annual population growth. Births, however, have reacted in a volatile response to economic and social changes.

Such variability is best described in terms of fertility --technically the average number of children expected over the lifetime of an adult woman, conventionally expressed in terms of the family. A 2.1 fertility measure is spoken of as a "two child family".

National fertility had been declining steadily for 120 years--from a 6.7 child family in 1820 to a 2.2 child family in 1940--when a general speed-up in births began the post World War II "Baby Boom". Demographic forecasts were jolted in this era of record growth. Fertility measures rose to a peak of 3.7 children per family through the 1957-1960 period followed by a sudden downturn through the decade of the 1960's, reaching 2.1 in 1971 and an all-time low of 2.0 children per family by the close of 1972.

The persistent decline of fertility rates, accompanied by survey evidence showing that young mothers on the average prefer to have families of no more than two children, has prompted the U.S. Bureau of the Census to revise its forecasts of national population growth.* In that report, the two-child family which had once been considered an extreme low figure, was elevated to the middle range of probability. The national population in 2000, according to the Census Bureau, would range somewhere between a new low of 251 million persons (assuming births continued to decline and reach a new low of 1.8 children per family) and a high of 300 million (assuming a re-emergence of larger families at a fertility rate of 2.8 children each).

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* U.S. Bureau of the Census, Current Population Reports, Series P-25, No. 493, "Projections of the Population of the United States, by Age and Sex: 1972 to 2020," U.S. Government Printing Office, Washington, D.C., 1972.

Regional Plan Association, using this new Bureau of the Census report, has selected a "most likely" national fertility trend that in combination with death and immigration statistics produces a national population of 264 million by century's end.

With this national forecast as a base, the Association has calculated that in 2000 Regional population will "most likely" total 24.6 million persons. This climb will continue, reaching 27 million by 2020 when it will stabilize at "zero population growth".

Recognizing the high risk of error in making any such projection, Regional Plan Association has also calculated a range of possible growth. Should fertilities return to the level of the early 'sixties, the Region's population in 2000 would not likely exceed a high of 28 million. Should they continue to decline at the current rate, a population of 22 million would result by 1985, with no further growth.

The gamble of framing population projections is underscored by the Association's own experience. Relying on Bureau of the Census projections, Regional Plan in 1967 forecast that the 2000 population of the New York Region would total 30 million. Then in response to the downturn in births, the Association projection was revised downward to 28 million only two years ago. This projection is now forecast as the high growth limit.

Regional Trends and Underlying Assumptions

The "most likely" future. Projection of a regional population that will total nearly 25 million by 2000 and 27 million by 2020 with zero growth to follow is premised on an assumption

that national fertility will generally stabilize at an average of 2.1 children per family throughout the remainder of the century.

Regional fertility, however, will continue to range slightly below the national norm. The Region's historically lower-than-average reproductivity results from a larger-than-average number of single persons in the Region, a larger share of working women (who will therefore be devoting fewer years to child rearing), and a relatively greater access to contraception and abortion.

In addition, the "most likely" projection assumes in-migration, traditionally a significant source of Regional population growth, will trickle off after 1985. By the end of this century, those migrating into the Region will merely replace others who have moved away. Historically, in-migration has been stimulated by the potential of enhancing personal income, mainly through employment opportunities. But the Region's economic attraction to migrants from other parts of the nation will likely decline through the remainder of the century as children of the baby boom era mature and enter the job market, which itself will grow by smaller and smaller increments as other metropolitan areas "catch up" with the New York Region in terms of job opportunities. The net effect will be a lessening of the gap between the labor needed by Regional industries and the supply of workers from the resident population.

High growth forecast. Though not considered a likely event, a 28 million population by century's end is possible if the nearly three-child family of the 1960's again becomes the fashion. Such a growth would add eight million to the Region's

population by 2000--70 percent more than the addition that would result from the "most likely" projection based on a two-child average. With this high growth projection, population in 2020 would swell to 35 million, and in the years beyond there would be continued growth instead of stability. In-migration would not increase, because the ample labor supply from those already born would create no gap of unfilled jobs by which migrants would be attracted. Instead the Region would be on the way toward development of a labor surplus and generation of out-migration during the Twenty-first Century.

Low growth forecast. A low rate of growth, also considered unlikely, is based on an assumption that the fertility decline witnessed in the 15 years since 1957 will continue. This would produce zero growth and a Regional population of 22 million in 1985. After 1985 population would decline. Stability at a 22 million population level could be maintained only in the long run if each sub-replacement generation were followed by a generation of growth from in-migration, greater reproductivity rates or a combination of greater fertility and migration.

Implications of the "Most Likely" Projection

Changing age structure. The "most likely" projected growth will be accompanied by changes in the age structure of the Region's population. The "youth culture" that held sway in the 1950's and 1960's will probably give way to a more "mature" atmosphere as older age groups increasingly represent larger portions of the population. The Region's median age will rise from the 1970 level of 30 to 35 by 2000.

As the new century dawns, the working age population (aged 25 to 64) will have increased its ranks most, from nearly 48 percent of the 1970 population to 55 percent of the total in 2000. Senior citizens will increase slightly as a proportion of the total. All categories of youth--from pre-school to college age--will decline as a proportion of the Regional population.

A stable Regional population, two decades later in 2020, will be accompanied by an equalizing of population age groups: there will be an equal number of persons in each age group from birth to 50. From 50 onward the number in each group will progressively decline as a result of increasing deaths. Interestingly, the pyramid which demographers have used to diagram the age make-up of the population will become a box (representing the even shares) topped by a pyramid (representing the decline caused by higher deaths after 50) in the older age groups. The traditional pyramid resulted from a constant increase in total births.

Education enrollments. During the next 30 years, elementary school enrollments will decline slightly from 3.3 million to 3.1 million, meaning that in most jurisdictions the crush on elementary school facilities has ended. On the average, present capacity should be adequate through the remainder of the century. Of course, developing suburbs will still need new schools, but some closings can be expected in the more heavily settled areas of the Region.

Greater growth will occur in later stages of education. Over the next 30 years high school enrollment will likely climb to 1.6 million, meaning that accommodations will be needed for an

added 240,000 pupils, an 18 percent increase. Colleges will feel the greatest impact: college enrollment in 2000 will total 1.48 million--more than double the 1970 enrollment of 660,000 based on a rise in the participation of all age groups in higher education.

How the Changes Will Affect Regional Development

Managing growth. The population projected for the next 30 years represents not only less growth than anticipated by earlier projections but also a smaller increment than was added to the Region in the 30 years before 1970. In the final three decades of this century, five million persons will be added to the Region's population. In the preceding three decades nearly 6.2 million were added in a burst of relatively unmanaged population growth that transmuted the Regional countryside into "spread city"--a scattering of settlement that was neither a true city, suburb, nor rural landscape. Now--with the projection of a lesser magnitude of growth, smaller family sizes and ultimate stability--the Region has an opportunity to accommodate its future growth in a much more graceful manner.

Housing. Children of the "baby boom," who will be forming families through the remainder of this century, will create a demand for three million additional housing units. This number would change little as a result of higher or lower fertility in the years ahead--since the formation of new households will be accomplished mainly by those already born. Incorporating the need for replacement of worn out and substandard housing with the expected increase in new homes, the total housing unit demand for 2000 is doubled to approximately six million units.

The predicted changes also will affect the amount of interior dwelling space sought. Smaller families would decrease the demand for household space--less floorspace needed with fewer children per family--given that priorities for spending on lodging remain unchanged. (Of course, should the higher incomes that would likely accompany the Region's projected growth be spent for increased dwelling space, then the average living space per person would increase.) While these trends depend on choices yet to be made, the decline in household size appears clear: the 1950 average of 3.4 persons per household had declined to 3.1 by 1970, and according to the "most likely" forecast it will decline even further to 2.6 persons per household by 2000.

The total demand for additional urbanized land, however, could well decline as a result of a greater demand for apartments and the lower magnitude of growth itself. The New York Urban Region, as defined by Regional Plan Association, consists of about 13,000 square miles, of which 3,000 are now largely settled. Assuming one-third of the remaining space (3,300 square miles) is set aside for permanent open space and the remaining 6,700 square miles are developed at densities allowed by today's zoning laws, the remaining land will easily accommodate a stable population of 27 million by 2020. A rise in apartment living could serve as a force for land conservation, because as apartment demand increases, the demand for residential development space decreases.

In fact, a growing demand for apartments can be expected as a result of the general need for less dwelling space, the growing proportion of single persons, and the expected increase

in working wives and professionals who will seek housing concentrated near office locations.

The Economy

Total employment. Even though the "most likely" projection lowers the population growth that the Region can expect by 2000, it does not dramatically alter employment prospects through the remainder of this century: the population level in 2000 will be 12 percent less than the level projected by Regional Plan Association two years ago. Yet employment will be only four percent less than forecast earlier, because most of those who will be holding jobs at century's end have already been born. Their numbers are affected little by the population revision which is keyed to births of children whose parents will be in the labor force anyway.

Employment will likely increase 37 percent above the 1970 level of 8.6 million jobs to 11.8 million jobs by 2000. This would place 48 percent of the population in the labor force, compared to the 42 percent in the 1970 labor force. Were greater population growth to ensue (as predicted by earlier studies and as shown here in the high growth pattern), a 28 million population in 2000 would be accompanied by an employment level of 12.3 million jobs.

Types of employment. The shape of future employment will also change. The remaining years of this century will witness a continued rise of jobs in office buildings and an actual decline of jobs in factories. Employment in office buildings will nearly double by 2000, reaching 3.5 million. At the same time, jobs in

factories will slide from nearly two million in 1970 to 1.7 million in 2000.

This rise in office employment allows for the planning of more centralized development. Manufacturing and goods handling industries seek horizontal space and tend to disperse populations, while most office jobs are suitable for location in compact downtowns. Although most recent office construction outside Manhattan has been situated in scattered suburban sites, the predicted increase in office employment provides economic support which policy makers could use to stimulate development and redevelopment of the Region's centers.

"Population serving" industries--such as retailing, personal services and transportation--which grow as a result of population and income growth, will add nearly two million jobs, for a total of 6.6 million jobs by 2000. This sector will represent 56 percent of all employment in the Region at the advent of the new century.

Production. Similarly, the gross regional product (the Region's total output of goods and services) is expected to increase from $116 billion in 1969 to $318 billion (in constant dollars) in 2000 under the "most likely" projection. Gross regional product would total $331 billion according to the previous, and now high, projection.

Income. In the future, with 48 percent of the Region's population participating in the labor force (that is, working or seeking work) and an average of fewer children (two per family instead of three as projected previously), per capita income will

rise dramatically.

Income derived mostly from wages and salaries is expected to increase nearly 150 percent above the 1969 average of $3,864 per person to $9,571 per capita in 2000, as calculated in constant dollars. Personal income, a measure of wealth that adds other means of support (such as interest, dividends and growth in the value of assets), to wages and salaries, will likely increase from $4,769 to $11,564 on a constant dollar, per person basis. Not only will both income measures continue to grow faster than population, but the Region will also remain above the national income averages--though the average national and Regional per capita income measures will ultimately converge as the remainder of the country "catches up" with the economy of the New York Region. (Nationwide, per capita money income derived from wages and salaries is expected to average $8,444 by 2000--up from $3,127 in 1969. Nationwide personal income--that derived from all sources--is expected to average $9,753 by 2000--up from $3,688 in 1969.)

The major implication arising from this projection of income growth is less the Region's position vis-a-vis the rest of the nation than it is the very growth of affluence itself. Rising prosperity indeed bodes as a mixed blessing. How the increased incomes will be used poses the critical questions for the future. Will the incomes be used for the purchase of third automobiles, second homes and private airplanes by higher income groups? Will lower income groups be getting a larger share of the total income and spend it for better housing, first cars and more luxuries? Or will a portion go into improving the environment.

and providing for better public services? Answers to such questions will lie with policy makers and the implications of their decisions will not be minor.

Two Major Themes

How can the striking rise in income be managed so private desires and the public environment are best provided for? The expected increase in wealth suggests that a major challenge to policy through the remainder of this century will be less the task of accommodating truly massive growth--as earlier population studies led some analysts to believe--and more the challenge of managing income.

The strain on resources (in terms of pollution and energy usage) is caused primarily by increasing wealth--not by population growth. In addition, a rise in governmental activity could result from higher personal incomes, if the greater tax potential were tapped.

A second major theme emerges from the population forecast itself. How do we want to shape the Region for a long period ahead with the last spurt of population and job growth it may get? Stability itself will issue a serious challenge to future policy makers. With the likelihood of population stability by 2020, it becomes clear that the designs, plans, and settlement patterns arranged through the remainder of this century will establish the form and nature of the environment for many decades to follow. Whatever is developed will not be quickly changed or swept aside by larger populations of succeeding generations.

Regional Plan Association
235 East 45th Street • New York, New York 10017 • (212) 682-7750

March 16, 1973

NEW REGIONAL PROJECTIONS:

TABLES

The following tables furnish detailed data to augment the summary of Regional Plan's analysis of social and demographic trends in the New York Urban Region.

TABLE 1. Alternate Projections of the Region's Population and Employment

IN THOUSANDS

	POPULATION	EMPLOYMENT
Past Growth		
1950	15,147	6,665
1960	17,624	7,333
1970	19,750	8,625
High Projection		
1985	23,546	10,300
2000	27,968	12,300
2020	35,000	
Beyond	Continued Growth	
"Most Likely" Projection		
1985	22,517	10,300
2000	24,583	11,800
2020	27,000	
Beyond	Stability	
Low Projection		
1985	21,490	10,300
Beyond	Stability or Decline	

Source: Regional Plan Association

TABLE 2. Summary of Projections for the New York Urban Region, 1970 to 2000

	1970	2000	
		"Most likely" Projection*	High Projection**
Total Population (000)	19,750	24,600	28,000
Annual Growth Rate		0.7%	1.2%
Annual Births (000)	325	325	430
Median Age	30	35	31
Portion in Ages 25 to 64	48%	55%	49%
Total Employment (000)	8,600	11,800	12,300
Jobs in Office Buildings (000)	2,000	3,500	3,600
Jobs in Factory Buildings (000)	2,000	1,700	1,900
Portion of Population in Labor Force	42%	48%	44%
Total Households (000)	6,400	9,400	9,700
Average Household Size	3.1	2.6	2.9
Total Families (000)	5,070	7,000	7,240
Average Family Size	3.5	3.1	3.5
Total Enrollment (000)	5,250	6,100	8,000
Elementary (000)	3,270	3,050	4,150
High School (000)	1,320	1,570	2,040
College (000)	660	1,480	1,820
Percapita Money Income (1969 dollars)	$3,864	$9,571	$8,769

* Growth selected from high-to-low possibilities which is considered "most likely" to occur.
** This high projection is idential with the projection prepared two years ago for use in Regional Plan research.

Source: Regional Plan Association

TABLE 3. Trends in National Fertility of the United States

Year	Total Fertility*
1820	6.7
1840	6.1
1860	5.2
1880	4.2
1900	3.5
1920	3.1
1930	2.5
1940	2.2
1946	2.8
1950	3.1
1957	3.7
1960	3.7
1967	2.6
1970	2.5
1971	2.1
1972 (first half)	2.1
1972 (second half)	2.0

* Average number of births for woman during her lifetime, conventionally expressed as children per family.

Source: U.S. Bureau of the Census and National Center for Vital Statistics

TABLE 4. "Most Likely" Projection of School Enrollment in the Region by Age and Level, 1970 to 2000

IN THOUSANDS

Age Group	1970	1975	1985	2000
5 to 6	585.8	533.5	535.5	582.6
7 to 13	2,498.8	2,456.3	2,084.3	2,388.8
14 to 17	1,334.2	1,515.7	1,336.8	1,466.7
18 to 24	680.4	881.6	1,080.9	1,230.5
25 to 29	106.1	156.3	243.3	247.9
30 to 34	51.7	82.9	134.1	184.4
TOTAL	5,257.0	5,626.3	5,414.9	6,100.9
Education Level				
Elementary and Kindergarten	3,271.0	3,185.1	2,760.7	3,050.7
High School	1,324.0	1,539.1	1,430.8	1,566.5
College	662.0	902.1	1,223.4	1,483.7
TOTAL	5,257.0	5,626.3	5,414.9	6,100.9

Source: Regional Plan Association, based on U.S. Bureau of Census projections of enrollment adjusted for the Region.

TABLE 5. Births and the General Fertility Rate in the Region, 1960 to 1970

	Births in Region (000)	General Fertility Rate (Births per 000 women aged 15-44)	
		Region	U.S.*
1960	364.3	99.7	118.0
1961	368.3	99.5	117.2
1962	359.9	95.9	112.2
1963	365.4	96.1	108.5
1964	363.8	94.4	105.0
1965	353.3	90.4	96.6
1966	339.2	85.7	91.3
1967	324.7	81.0	87.6
1968	316.6	78.0	85.7
1969	326.4	79.4	85.8

* See Chart

Source: State Departments of Health, Port Authority of New York and New Jersey, Tri-State Regional Planning Commission, U.S. Bureau of the Census.

US GENERAL FERTILITY RATE, 1910-1970
Births per thousand women, 15-44 years

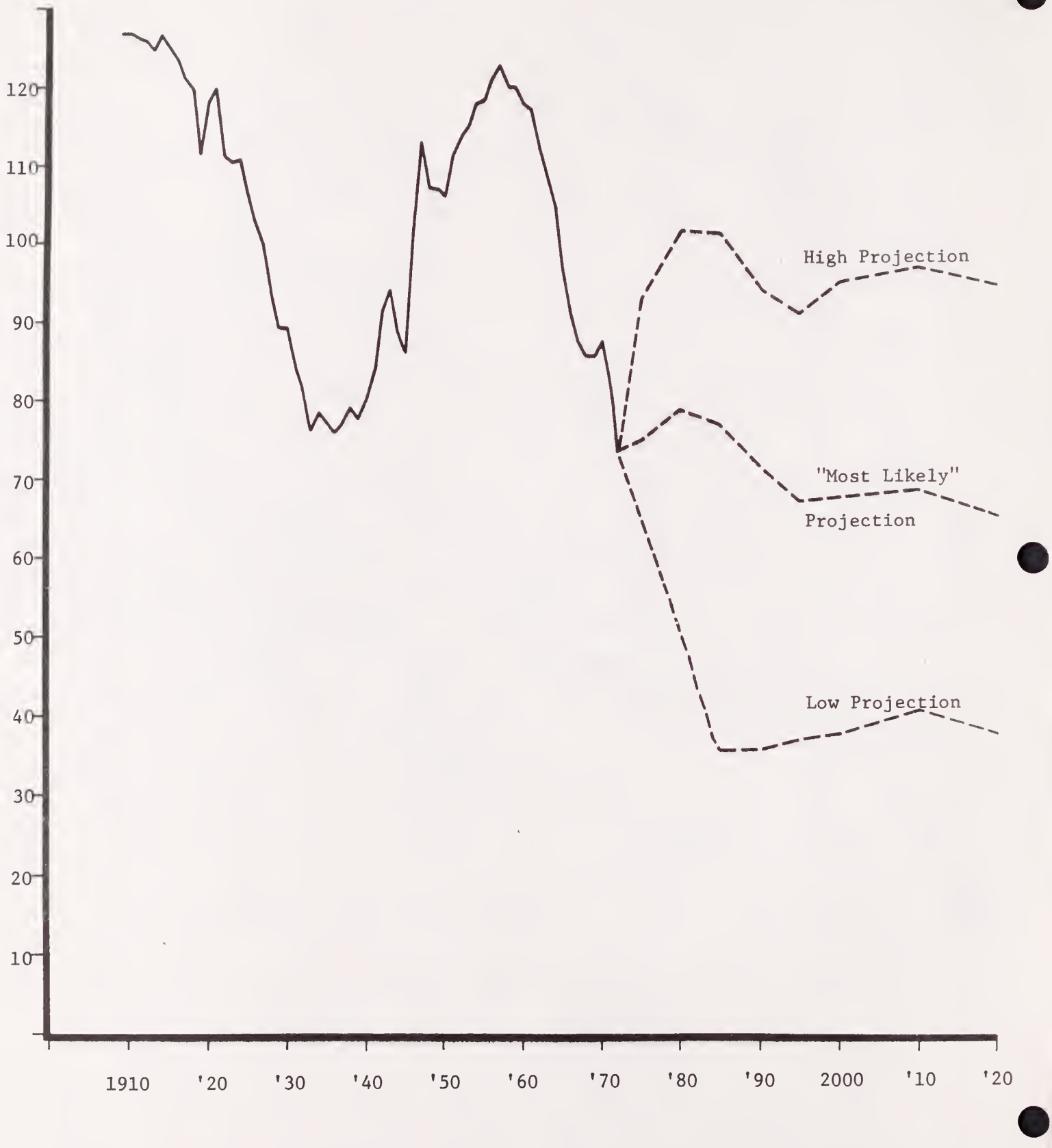

TABLE 6. Projections of Births in the Region: 1970 to 2000

IN THOUSANDS

	"Most Likely"	High
1970-'75	1,425.7	1,559.3
1975-'80	1,588.8	1,994.0
1980-'85	1,725.1	2,236.7
1985-'90	1,779.7	2,358.4
1990-'95	1,693.9	2,342.2
1995-2000	1,626.9	2,421.2
TOTAL	9,840.1	12,911.8
ANNUAL AVERAGE	328.0	430.4

Source: Regional Plan Association, based on U.S. Bureau of Census.

TABLE 7. Net Migration by Age and Sex in the Region, 1950-'60 and 1960-'70

IN THOUSANDS

1950-'60	BOTH SEXES	Labor Force Component			Dependent Component		
		TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE
Under 5	39.0	-	-	-	39.0	18.8	20.2
5-9	67.1	-	-	-	67.1	33.6	33.5
10-14	77.5	-	-	-	77.5	37.5	40.0
15-19	36.5	10.3	-.5	10.8	26.2	-1.3	27.5
20-24	116.9	71.4	15.9	55.5	45.4	3.7	41.7
25-34	356.1	235.3	170.3	64.9	120.8	12.9	108.1
35-44	116.0	84.0	65.9	18.0	32.1	3.7	28.3
45-64	4.3	13.8	16.4	-2.6	-9.5	-.2	-9.2
65 +	-108.2	-22.3	-17.9	-4.5	-85.9	-30.8	-55.0
TOTAL	705.3	392.4	250.0	142.3	312.9	77.7	235.1
1960-'70							
Under 5	-38.3	-	-	-	-38.3	-19.5	-18.8
5-9	35.2	-	-	-	35.2	20.6	14.6
10-14	115.2	-	-	-	115.2	56.3	58.9
15-19	55.9	17.0	4.1	12.9	38.9	8.9	30.0
20-24	5.3	-8.4	-51.6	43.2	13.7	-17.5	31.2
25-34	441.2	292.4	205.5	86.9	148.8	14.1	134.7
35-44	127.7	88.3	57.4	30.9	39.4	2.6	36.8
45-64	-46.6	-27.0	-10.1	-16.9	-19.6	-1.0	-18.6
65 +	-152.1	-33.9	-25.9	-8.0	-118.2	-55.9	-62.3
TOTAL	543.5	328.4	179.4	149.0	215.1	8.6	206.5

Source: Regional Plan Association based on U.S. Bureau of Census.

TABLE 8. Projections of the Region's Households, Families and Unrelated Individuals, 1950 to 2020

	HOUSEHOLDS*			
	TOTAL (in 000's)	AVE. SIZE	FAMILIES (in 000's)	UNRELATED INDIVIDUALS (in 000's)
1950	4,406.2	3.44		
1960	5,524.7	3.19		
1970	6,409.7	3.08	5,066.4	1,811.0
"Most likely" Projection				
1985	8,140.0	2.77	6,210.0	2,250.0
2000	9,380.0	2.62	7,000.0	2,640.0
2020	10,400.0	2.60		
High Projection				
1985	8,190.0	2.88	6,240.0	2,270.0
2000	9,690.0	2.89	7,240.0	2,710.0
2020	12,000.0	2.90		

* One or more persons occupying a dwelling unit (may be a family or several unrelated individuals).

Source: U.S. Bureau of Census and Regional Plan Association.

TABLE 9. Projections of the Region's Population by Five-Year Age Cohorts: 1970 - 1985 - 2000

IN THOUSANDS

		"Most Likely" Projection		High Projection	
	1970	1985	2000	1985	2000
Under 5	1,583.0	1,690.2	1,600.6	2,192.6	2,381.2
5-9	1,802.6	1,588.1	1,674.9	1,984.5	2,325.3
10-14	1,838.1	1,470.4	1,792.7	1,600.6	2,394.9
15-19	1,631.9	1,690.4	1,762.0	1,690.4	2,293.8
20-24	1,448.5	1,943.5	1,654.2	1,943.5	2,078.6
25-29	1,339.5	2,010.7	1,549.3	2,010.7	1,747.4
30-34	1,146.5	1,836.4	1,825.4	1,836.4	1,910.1
35-39	1,146.2	1,742.3	2,098.2	1,742.3	2,166.8
40-44	1,264.5	1,548.7	2,082.7	1,548.7	2,124.7
45-49	1,291.5	1,195.2	1,820.8	1,195.2	1,835.5
50-54	1,185.1	1,111.7	1,653.6	1,111.7	1,657.7
55-59	1,082.3	1,127.4	1,388.8	1,127.4	1,387.5
60-64	933.9	1,070.3	996.4	1,070.3	994.4
65-69	746.6	867.9	825.8	867.9	821.6
70-74	578.5	687.1	734.2	687.1	731.0
75-79	383.4	477.2	565.8	477.2	563.0
80-84	211.7	288.0	341.8	288.0	340.2
85 +	135.2	171.6	215.3	171.6	214.0
TOTAL	19,749.0	22,517.1	24,582.5	23,546.1	27,967.7
MALE	9,430.0	10,654.9	11,693.5	11,179.5	13,382.3
FEMALE	10,319.0	11,862.2	12,889.0	12,366.6	14,585.4
MEDIAN AGE	30	31	35	30	31

Source: U.S. Bureau of Census and Regional Plan Association

TABLE 10. Projections of Per Capita Income in the Region and the Nation, 1950 to 2000

	IN CONSTANT 1969 DOLLARS			
	Per Capita Regional Income		Per Capita National Income	
	Personal	Money	Personal	Money
1950 (49)	$ 2,942	$2,267	$ 2,229	n.a.
1960 (59)	3,436	2,906	2,635	$2,255
1970 (69)	4,769	3,864	3,688	3,127
"Most Likely" Projection				
1985	7,501	6,397	6,150	5,562
2000	11,564	9,571	9,753	8,444
High Projection				
1985	7,173	6,118	5,830	5,271
2000	10,595	8,769	9,092	7,872

Note: Money income is that derived mostly from wages and salaries. Personal income adds wages and salaries to other sources of wealth, such as interest, dividends, and growth in the value of assets. Income data for 1950 to 1970 reflect dollar reported for the previous year. Historical money income provided by the U.S. Bureau of Census, Census of Population; under-reported by 13%, corrections not shown. Personal income provided by Office of Business Economics for 26 counties in the Region; RPA adjustments for the Region as a whole. Projections of regional and national money income based on U.S. Bureau of Census national projections and methodology, as contained in Miller, Population, Pollution and Affluence. Changes in national money income projections, as reported, reflect changes in "Most Likely" Projection and High Projection population forecasts and conversion to 1969 dollars. National money income projections assume a 3% annual rise in productivity; regional money income projections assume a 2.8% annual growth. Personal income projections based on Office of Business Economics national projections as contained in Survey of Current Business, April 1972. Changes in national per capita personal income projections, as reported, reflect changes in High Projection population forecasts, conversion to 1969 dollars, and application to "Most Likely" Projection population forecasts. Regional personal income forecasts based on unpublished 26 county projections, adjusted for the Region as a whole; they correspond to the slower productivity growth assumption of money income in the Region.

Source: Regional Plan Association, based on U.S. Bureau of Census and Office of Business Economics.

Regional Plan Association

. . . a research and planning agency supported by voluntary membership to promote the co-ordinated development of the New York- New Jersey-Connecticut Metropolitan Region.

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NEWS RELEASE

No. 1205
July 10, 1973

For Information: Call Sheldon Pollack
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NEW COUNTY POPULATION, HOUSING NEED, JOB, INCOME PROJECTIONS FOR NEW YORK URBAN REGION TO 1985, 2000 ANNOUNCED BY REGIONAL PLAN

New population and job projections for New York City and each of the 26 surrounding counties in New Jersey, New York and Connecticut were announced today by Regional Plan Association. Housing needs and per capita income for 1985 also were projected.

Regional Plan, a civic organization which has been doing research on the New York Urban Region since the 1920's, announced in March a 40 percent cut in the population growth it formerly anticipated between 1970 and 2000 in the Region. The new county figures presented here reflect the change in the Regional population expected in 2000 -- from 28 million projected by the Association in 1968 to 25 million projected this year. (It was a sharp decline in the nation's birth rate that brought about a drop in national population projections, which Regional Plan adjusted for the 31 counties surrounding the Port of New York and New Jersey.)

Primary Growth Areas

More than a fourth of the Region's five million projected population growth for 1970-2000, 1.3 million, is expected to settle in a semi-circle of four New Jersey counties, Morris, Somerset, Middlesex, and Monmouth, which make up only an eighth of the Region's area.

Another million is expected on Long Island -- Nassau and Suffolk County -- a fifth of the projected growth on less than a tenth of the Region's area.

Two-thirds of a million are expected to intensify development in and near the Core of the Region -- Queens and Staten Island in New York City and Hudson, Essex and inner Bergen Counties in New Jersey--15 percent of the expected growth on three percent of the Region's land. This reflects the rising demand expected for apartments and attached housing close to the center as many more households will be without children and as jobs increase in the Region's Core.

About a million people are likely to settle on the outskirts of the Region, particularly in Ocean County, New Jersey, the southernmost county of the Region (240,000), but also in two of the northernmost counties, Orange and Dutchess (330,000 together) and in much smaller numbers in Ulster, Putnam and Sullivan in New York State and Litchfield in Connecticut (250,000 in all). The three westernmost counties, Sussex, Warren and Hunterdon, will grow in smaller numbers, gaining about 175,000 together.

Another two-thirds of a million will settle in older suburban areas like Westchester and Rockland (New York), Fairfield (Connecticut) and Union (New Jersey). Some of the increase will be in apartments on underused land in developed parts of those counties, some on still-vacant land on the edges.

The rest of the Region's added five million are expected to live in and around Trenton, New Jersey; New Haven, Connecticut; and Paterson, New Jersey, three outlying metropolitan centers.

Looking at New York City's five counties together, the City will remain virtually stable over the rest of the century--adding perhaps 100,000 persons to its 7.9 million.

Assumptions Behind Projections

The Association emphasized that these county population figures are neither predictions of what will happen nor recommendations of what should happen. They are projections of what will probably happen if recent trends and policies continue, with the exception that present zoning which prevents construction of moderate-priced housing in most suburban counties is expected to be changed at some point so enough housing can be built for added households.

Under these assumptions, the Association expects the added population to settle as close to the center of the Region as space and transportation allow. Especially large population rises are expected in parts of New Jersey where highways are about to be completed, making those places as accessible as areas equally close to Manhattan that now have higher density.

Three Measures of Growth

Three measures of growth provide different impressions of the population changes anticipated.

In percentage terms, the fastest growing county is expected to be Putnam (as it was in the 1960's), with a growth rate of more than three percent per year. Next in order of high growth rate are expected to be Ocean, Sussex, Morris, Monmouth and Middlesex -- all in New Jersey and all likely to grow at more than two percent per year for the last 30 years of the century.

The next most rapidly growing counties will probably be Orange, Hunterdon, Suffolk, Somerset, Dutchess, Ulster and Warren -- all likely to grow faster than 1.5 percent per year or more than 60 percent over the 1970-2000 period.

However, percentage rises do not always indicate a large total growth, since there are very few persons living in some of these counties now -- particularly Putnam, Sussex and Hunterdon among the fastest growing. In total population rise, Suffolk is expected to be by far the largest gainer: with nearly 825,000 more persons; Middlesex with about 415,000; Monmouth with about 390,000 and Morris with about 355,000.

But because of differences in size of the counties, that, too,is an imperfect measure of the impact of prospective growth. For example, Suffolk County is 100 square miles larger than Middlesex and Monmouth together, yet the combined projected population rise of the two New Jersey counties is almost the same as Suffolk's. So the fact that Suffolk's growth will be more than any other county's does not really indicate that it will be getting the most intensive growth. Increase in density shows where growth is most intense.

Between 1970 and 2000, the greatest increases in density are expected in Staten Island, Hudson County, Queens, Middlesex, Bergen, Suffolk, Monmouth, Morris and Rockland, in that order.

Housing Needs

Housing construction and rehabilitation needed over the next dozen years also have been estimated by Regional Plan -- based on the projected increase in households as well as the existing substandard housing and anticipated deterioration over the next decades of presently adequate buildings.

The highest annual needs are in New York City -- 65,000 housing starts a year needed through 1984, over 19,000 units a year in Manhattan, nearly 17,000 in Brooklyn, 16,000 in Queens, 9,000 in the Bronx and 4,200 on Staten Island.

In suburban counties, Suffolk will need over 20,000 a year, Westchester more than 12,000, Middlesex, Morris, Essex and Ocean over 10,000 each.

To fill these needs, 10 counties will need more than three times the housing starts in every one of the years through 1984 that they had in each of the first three years of the 1970's: Sullivan, Hudson, Essex, Passaic, Ulster, Hunterdon, Putnam, Queens, Manhattan, and Westchester -- in the order of the greatest increased construction need first. In addition, Dutchess, Middlesex, Somerset, Warren, Manhattan, Nassau and Union will need to nearly triple their 1970-72 housing construction and rehabilitation rate. And Bergen, Morris, Monmouth, Sussex, the Bronx, Orange and Fairfield will have to increase their rate by two to 2 1/2 times.

On the other side of the need picture, New Haven, Rockland, Staten Island and Ocean will only have to keep up with their recent construction rate (roughly) to meet the 1970-85 needs.

The other three counties -- Mercer, Suffolk and Litchfield -- will have to increase their 1970-72 home-building rates by a third to a half to meet their projected needs.

Job Shifts

Regional Plan anticipates a substantial shift in factory jobs -- a decline of 180,000 in the Core (New York City excluding Staten Island, Hudson County and Newark) and an increase of 100,000, mainly on the edges of suburbia.

Office jobs will nearly double by the end of the century with the greatest expansion in the Core. About half of the 1970-85 office growth is expected in the Core.

The remaining jobs -- which directly serve residents -- will follow where new housing leads.

Commuter, Age Patterns

With more corporate headquarters moving to the suburbs, an increasing number of residents of the older, close-in suburbs will be driving around the suburbs to their jobs rather than taking a commuter train

or bus to Manhattan. But with the large increase in office jobs forecast for Manhattan and downtown Newark, the number of rail and bus commuters will be increasing rapidly from the farther-out new suburbs -- Suffolk, Northern Westchester, Rockland, Middlesex, Monmouth, Morris, Ocean and Orange.

Public transportation services from these newer suburbs cannot be as good as from the closer-in places, not only because of the extra cost that added distance entails but also because density is lower. People will have to drive farther, on the average, to get to a bus or train, and frequency of service will be lower because each stop serves fewer persons.

Nevertheless, the high cost of housing in most older suburbs probably will keep the high-level executives there even if their jobs move out farther while middle-managers working in Manhattan will have to live farther out.

In the same way, most younger families cannot afford the old suburbs, so schools there are emptying out while newer suburbs -- which more younger families can afford -- must continue to build schools rapidly.

Income Changes

Relative per capita income within the Region depends primarily on the cost of housing in each county.

Manhattan's average per capita income is expected to remain the highest in the Region. Westchester is projected to drop from second in 1970 to fifth in 1985, while Fairfield rises from fourth to second. Nassau will remain third, tie with Bergen which was fifth in 1970. Somerset rises to sixth in the Association's 1985 projection from eighth in 1970. Morris is expected to remain the seventh highest-income county in 1985. Rockland is expected to rise from tenth to eighth, while Union slips from sixth to ninth and Queens from ninth to tenth.

The Bronx is expected to remain the lowest-income county, while Brooklyn drops to next lowest from three places higher. Hudson is expected to be the third poorest county from four places higher. Sullivan will be fourth poorest, an improvement from the next to the lowest position in 1970, and Ulster will be fifth lowest, an improvement from third lowest. Orange is expected to have the sixth lowest per capita income, an improvement from the fourth lowest position in 1970. Ocean is expected to improve its status from sixth lowest to fifth.

All counties will have much higher per capita income, however, as the Region's income (in constant 1969 dollars) increases by two-thirds. But Manhattan's per capita is expected to nearly double between 1970 and 1985 while the Bronx' will be rising by only about 40 percent, according to Regional Plan's estimates.

This study is part of a 1970 Census analysis carried out by the Association staff, primarily Chief Economist Regina B. Armstrong, under the general supervision of Vice President Boris Pushkarev. The work is financed by The Ford Foundation.

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No. 1181
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March 25, 1973

Last Chance to Shape the Region

TRI-STATE AREA TO STOP GROWING BY 2020, REGIONAL PLAN PROJECTS;
HOW TO ACCOMMODATE INCOME, NOT POPULATION, CALLED MAIN ISSUE NOW

The sharp drop in the nation's fertility, underway since 1960, relieves New York Urban Region planners of the specter of continued growth that would, as suggested by economist Raymond Vernon only a decade ago, eventually stretch urban development continuously to Chicago.

This is a major finding of the first portion of a new demographic analysis conducted by Regional Plan Association with Ford Foundation financing and released today. Only two years ago, Regional Plan--basing its analysis on projections by the U.S. Bureau of the Census--forecast that the New York Urban Region would have a population of 28 million in the year 2000. The Region includes New York City and 26 surrounding counties stretching from Trenton, New Jersey, to New Haven, Connecticut. Three years earlier, the Association projected a 30 million population by the advent of the next century. Both of these earlier projections foresaw no end to growth. The current projection anticipates a Region of nearly 25 million in 2000 and an end to its population growth by 2020 at about 27 million. (A recent federal report that fertility rates in the last

half of 1972 dropped below replacement level--in which each couple produces only enough children to replace themselves--is accounted for in the Regional Plan projection.)

Using Census Bureau data, Regional Plan forecasts that the nation and the Region will eventually see an end to population growth. Because of unique trends, the New York Region will achieve zero population growth two decades earlier than the nation.

Because the fertility rate is volatile, a range of possible population levels is projected. If the fertility rate continues to drop at the recent rate of decline, the Region's population would stop growing by 1985 with 22 million persons, the Association calculated. That's the low projection. Since the 1957-1960 period, when fertility rates for this century peaked at an average of 3.7 children per family, national reproductive trends have dropped to an all-time low of 2.0 children per family, as reported last month by the National Center for Health Statistics.

On the other hand, a return to the nearly three-child family characteristic of the mid- to late '60's would result in a total of 28 million people in the Region in 2000 and continued growth beyond 2020. That is the Association's high projection.

Three conditions suggest that the nation's fertility rate will not turn sharply upward again, but rather settle at a replacement level of 2.1 children per family: (1) interviews showing young women both prefer and plan families which average approximately two children; (2) the widening availability of contraception devices and information and abortion, legalized by recent court decisions, and (3) the fact that historic trends in both Europe and the United States fit current birth rates and do not fit the short-term "baby boom" birth rates.

"Since population growth is likely to end early in the next century," Regional Plan President John P. Keith commented, "we must now plan to use the remaining growth in jobs and population to shape the Region as we want it to be over

the long run. Particularly, the expected growth in office jobs over the next three decades offers us the last chance to re-establish existing city centers as metropolitan downtowns--if we want to.

"Although population growth over the next century is expected to be only 25 percent, office jobs are projected to grow by 90 percent. The declining fertility rate affects the number of jobs very little, since the great majority who will be in the labor force in 2000 already are born.

"The birthrate drop means there will be far more smaller households in the Region with more women working," Dr. Keith pointed out. "Typically they prefer apartments near their jobs and other activities, generally in cities.

"The economic and demographic changes from large to small households and from factory to office employment give us the opportunity to rebuild our cities and save our countryside from haphazard urban intrusions," Dr. Keith added. Factory jobs are projected to decrease from now on.

With births much more under control, planners may find "wealth control" their primary problem, Regional Plan suggests. Per capita personal income is projected to be nearly two-and-a-half times as high in 2000 as it was in 1970 in dollars of the same purchasing power.

"If spent mainly for personal goods--third cars, second homes, private airplanes and more disposables that soon become wastes--the added income could degrade the environment more than a continued high birthrate. On the other hand, the increased wealth could be spent for more, better designed, and better maintained public places and urban housing. This new wealth could be used to ameliorate poverty, deter crime, clean streets and eliminate air pollution, to improve urban design and public transportation, save the wetlands, and capture the unique outdoor resources of the Region," Dr. Keith said.

"For the past 20 years, planners have been riding up and down the Region like Paul Revere crying: 'the people are coming,' and urging listeners to plan for

them. Now our job is to get people to consider either the tremendous negative impact their growing wealth will have if each person spends it without considering the effect it will have on the environment or the tremendous positive impact it could have if the public environment of the Region is considered.

"Another opportunity: knowing that population is likely to taper off at 27 million gives us a chance to plan all the public open space we'll want for all the growth expected and to issue bonds and buy it all now when it will be much less expensive than waiting. If we act this way we will be sure to get the land we really want," Dr. Keith added.

"Altogether, the new demographic and economic facts suggest that the 1970's should be the decade of regional planning. Regional residents will have more money. They will have confidence that the Region's population won't continue to grow indefinitely, and they will have the kinds of jobs and households which can either be accommodated in cities or spread out--unlike the case with factory jobs and large families, both of which need lots of space.

"Now is the time to choose the kind of environment we want: lively cities, unspoiled countryside and a choice of public transportation and walking as well as automobile travel--or spread city in which urban and rural are mixed and scattered and only the automobile can get us about. Whichever people want," Dr. Keith concluded, "let's make the decision consciously instead of continuing to blunder into spread city as we have been through the past two decades."

The population study is being made by Regina B. Armstrong, Chief Economist, under the direction of Boris Pushkarev, Vice President for Research and Planning. Analyses were conducted in consultation with the research staffs of the Port Authority of New York and New Jersey and other regional agencies.

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NOTE: A summary of the report is attached. It is the first in a series about economic and demographic studies of the Region and its constituent counties.

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